

WO 00/50639

Continued

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dehydrogenase DPD	U09178	274270	ASP974VAL
dihydropyrimidine DPD			
dihydropyrimidine DPD	U09178	274270	4-BP DEL 296 to 299 (TCAT)
dihydropyrimidine DPD	U09178	274270	CYS29ARG
dihydropyrimidine DPD	U09178	274270	1-BP DEL, 1897C Frameshift
dihydropyrimidine DPD	U09178	274270	ARG886HIS
dihydropyrimidine DPD	U09178	274270	Arg21Gln
dihydropyrimidine DPD	U09178	274270	Val335Leu
dihydropyrimidine DPD	U09178	274270	Glu386Ter
dihydropyrimidine DPD	U09178	274270	deltaC1897
dihydropyrimidine DPD	U09178	274270	Ser534Asn
dihydropyrimidine DPD	U09178	274270	Ile543Val
dihydropyrimidine DPD	U09178	274270	Val732Ile
dihydropyrimidine DPD	M60527	125450	115-base pair deletion
deoxycytidine kinase	M60527	125450	G to A glutamic acid for glycine
glucosylceramide synthase	D50840	602874	none found

hypoxanthine-guanine phosphoribosyltransferase	M31642	308000	ILE132MET
hypoxanthine-guanine phosphoribosyltransferase	M31642	308000	ASP80VAL
hypoxanthine-guanine phosphoribosyltransferase	M31642	308000	ASP201GLY
hypoxanthine-guanine phosphoribosyltransferase	M31642	308000	1-BP INS frameshift
hypoxanthine-guanine phosphoribosyltransferase	M31642	308000	EX8DEL
hypoxanthine-guanine phosphoribosyltransferase	M31642	308000	LEU41PRO
hypoxanthine-guanine phosphoribosyltransferase	M31642	308000	24AA+
hypoxanthine-guanine phosphoribosyltransferase	M31642	308000	PHE74LEU
hypoxanthine-guanine phosphoribosyltransferase	M31642	308000	ASP194ASN
hypoxanthine-guanine phosphoribosyltransferase	M31642	308000	ASP193ASN
hypoxanthine-guanine phosphoribosyltransferase	M31642	308000	SER110LEU

phosphoribosyltransfer	ase			
hypoxanthine-guanine	M31642	308000		VAL179DEL
phosphoribosyltransfer	ase			
hypoxanthine-guanine	M31642	308000		VAL130ASP
phosphoribosyltransfer	ase			
hypoxanthine-guanine	M31642	308000		ALA161SER
phosphoribosyltransfer	ase			
hypoxanthine-guanine	M31642	308000		SER104ARG
phosphoribosyltransfer	ase			
hypoxanthine-guanine	M31642	308000		PHE199VAL
phosphoribosyltransfer	ase			
hypoxanthine-guanine	M31642	308000		GLY70GLU
phosphoribosyltransfer	ase			
hypoxanthine-guanine	M31642	308000		GLY71ARG
phosphoribosyltransfer	ase			
hypoxanthine-guanine	M31642	308000		GLN108TER
phosphoribosyltransfer	ase			
hypoxanthine-guanine	M31642	308000		HIS203ASP
phosphoribosyltransfer	ase			
hypoxanthine-guanine	M31642	308000		ARG44LYS
phosphoribosyltransfer	ase			

ase	hypoxanthine-guanine phosphoribosyltransfer	M31642	308000	ASP176TYR
ase	hypoxanthine-guanine phosphoribosyltransfer	M31642	308000	2-BP DEL frameshift
ase	hypoxanthine-guanine phosphoribosyltransfer	M31642	308000	1-BP DEL,TTA-TA frameshift
ase	hypoxanthine-guanine phosphoribosyltransfer	M31642	308000	1-BP DEL,TTG-TG frameshift
ase	hypoxanthine-guanine phosphoribosyltransfer	M31642	308000	40-BP DEL frameshift
ase	hypoxanthine-guanine phosphoribosyltransfer	M31642	308000	G-to-A +5 intron 8 splice
ase	hypoxanthine-guanine phosphoribosyltransfer	M31642	308000	ATAG-TTTG -4 intron 8+I29
ase	hypoxanthine-guanine phosphoribosyltransfer	M31642	308000	GTAAGT-to-GTAAAT intron 7
ase	hypoxanthine-guanine phosphoribosyltransfer	M31642	308000	AG-to-TG intron 1
ase	hypoxanthine-guanine phosphoribosyltransfer	M31642	308000	PRO176LEU
ase				

hypoxanthine-guanine phosphoribosyltransferase	M31642	308000	ARG51GLY
hypoxanthine-guanine phosphoribosyltransferase	M31642	308000	ARG51TER
hypoxanthine-guanine phosphoribosyltransferase	M31642	308000	MET56THR
hypoxanthine-guanine phosphoribosyltransferase	M31642	308000	MET143LYS
hypoxanthine-guanine phosphoribosyltransferase	M31642	308000	ARG170TER
hypoxanthine-guanine phosphoribosyltransferase	M31642	308000	13-BP DEL, 5-PRIME UTR
hypoxanthine-guanine phosphoribosyltransferase	M31642	308000	EX2DEL
hypoxanthine-guanine phosphoribosyltransferase	M31642	308000	EX4-9DEL
hypoxanthine-guanine phosphoribosyltransferase	M31642	308000	EX6-9DEL
hypoxanthine-guanine phosphoribosyltransferase	M31642	308000	EX9DEL
hypoxanthine-guanine phosphoribosyltransferase	M31642	308000	1-BP INS G 207 frameshift

phosphoribosyltransfer	ase	M31642	308000	EX2-3DUP
hypoxanthine-guanine phosphoribosyltransfer	ase	M31642	308000	THR168ILE
hypoxanthine-guanine phosphoribosyltransfer	ase	M31642	308000	GLY16SER
hypoxanthine-guanine phosphoribosyltransfer	ase	M31642	308000	GLY58ARG
hypoxanthine-guanine phosphoribosyltransfer	ase	M31642	308000	LEU78VAL
hypoxanthine-guanine phosphoribosyltransfer	ase	M31642	308000	EX6DEL
hypoxanthine-guanine phosphoribosyltransfer	ase	M31642	308000	1-BP INS, T INS 14823
hypoxanthine-guanine phosphoribosyltransfer	ase	M31642	308000	ASP52GLY
hypoxanthine-guanine phosphoribosyltransfer	ase	M31642	308000	GLY140ASP
hypoxanthine-guanine phosphoribosyltransfer	ase	M31642	308000	ASP194GLU

ase	M31642	308000	TYR153TER
hypoxanthine-guanine phosphoribosyltransfer			
ase	M31642	308000	Mnl I
hypoxanthine-guanine phosphoribosyltransfer			
ase	M31642	308000	Bam HI
hypoxanthine-guanine phosphoribosyltransfer			
ase	M31642	308000	54 (from ATG to CTG) resulting in the replacement of methionine with leucine
hypoxanthine-guanine phosphoribosyltransfer			val179gly
ase	M31642	308000	
hypoxanthine-guanine phosphoribosyltransfer			
ase	M31642	308000	gly180arg
hypoxanthine-guanine phosphoribosyltransfer			
ase	M31642	308000	51 del 747 and 797 truncated protein
hypoxanthine-guanine phosphoribosyltransfer			
ase	Bcl-2	M13994	ACC-->GCC A1a43Thr
	Bcl-2	M13994	EcoRI
		151430	polymorphism
		151430	G to A exon 2
protein kinase C alpha	Bcl-2	M13994	ASP294GLY
protein kinase C beta 1	X52479	176960	
	X06318	176970	none found

protein kinase C delta	L07861	176977	none found
protein kinase C mu	X75756	*****	none found
protein kinase C theta	L01087	600448	none found
protein kinase C zeta	L14283	176982	none found
ecto-5'-nucleotidase	X555740	129190	none found
(CD73)			
alkaline phosphatase NM_000478		171760	ALA162THR
alkaline phosphatase NM_000478		171760	ARG54CYS
alkaline phosphatase NM_000478		171760	ASP277ALA
alkaline phosphatase NM_000478		171760	ARG54PRO
alkaline phosphatase NM_000478		171760	GLN190PRO
alkaline phosphatase NM_000478		171760	ALA16VAL
alkaline phosphatase NM_000478		171760	TYR419HIS
alkaline phosphatase NM_000478		171760	GLU174LYS
alkaline phosphatase NM_000478		171760	ASP361VAL
alkaline phosphatase NM_000478		171760	GLY317ASP
alkaline phosphatase NM_000478		171760	PHE310LEU
alkaline phosphatase NM_000478		171760	GLY439ARG
alkaline phosphatase NM_000478		171760	1-BP DEL, 1735T frameshift

alkaline phosphatase NM_000478	171760	ARG119HIS
alkaline phosphatase NM_000478	171760	GLY145VAL
alkaline phosphatase NM_000478	171760	ScrFI
alkaline phosphatase NM_000478	171760	BclI
ribonucleotide reductase M1 subunit	X59543	180410 SacI polymorphism within intron IX
ribonucleotide reductase M1 subunit	X59543	TaqI
ribonucleotide reductase M1 subunit	X59618	180390 none found
ribonucleotide reductase M2 subunit	X59618	138297 none found
aminopeptidase A	L14721	600555 none found
signal transducer and activator of transcription STAT1	J04088	126430 AGA to AAA ARG486LYS
topoisomerase IIa	J04088	126430 deletion of 1320- 1322
topoisomerase IIa	J04088	Ala429 Lys-797-->Asn
topoisomerase IIa	J04088	126430 Arg449Gln
topoisomerase I	J03250	126420 ASP533GLY
topoisomerase I	J03250	126420 ASP583GLY
topoisomerase I	J03250	126420 Asn722Ser
topoisomerase I	J03250	126420 TaqI
myeloperoxidase	X04876	C8089T ARG569TRP
myeloperoxidase	X04876	TYR173CYS
myeloperoxidase	X04876	MET251THR

myeloperoxidase	X04876	254600	G to A (promoter)
myeloperoxidase	X04876	254600	KpnI
myeloperoxidase	X04876	254600	Dinucleotide Repeat
myeloperoxidase	X04876	254600	EcoRV
myeloperoxidase	X04876	254600	PstI
b3-tubulin	U47634	60266	none found
interleukin 6 (IL6)	M14584	147620	174G-C
interleukin 6 (IL6)	M14584	147620	CA repeat
interleukin 6 (IL6)	M14584	147620	NlaIII promoter
interleukin 6 (IL6)	M14584	147620	AT repeat
interleukin 6 (IL6)	M14584	147620	MspI
interleukin 6 (IL6)	M14584	147620	BglI
interleukin 6 (IL6)	M14584	147620	BglII
interferon alpha1 (IFN $\alpha$ 1)	X02956	147660	none found
tyrosine kinase-type cell surface receptor	X033363	164870	VAL655ILE
HER2/ERBB2	X033363	164870	VAL654ILE
tyrosine kinase-type cell surface receptor	X02469	191170	CGC-CCC Arg72 Pro
HER2/ERBB2	X02469	191170	CCG-CTG Pro82Leu
tumor protein p53	X02469	191170	ATG-ACG Met133Thr
tumor protein p53	X02469	191170	cCAA-TAA Gln136Term
tumor protein p53	X02469	191170	cAGA-TGA Arg209Term
tumor protein p53	X02469	191170	aCCC-TCC Pro151Ser
tumor protein p53	X02469	191170	CCG-CTG Pro152Leu
tumor protein p53	X02469	191170	gCCC-TCC Pro219Ser
tumor protein p53	X02469	191170	cAAC-GAC Asn235Asp
tumor protein p53	X02469	191170	GGC-GTC Gly154Val

tumor protein p53	X02469	191170	ACA-ATA Thr256Ile
tumor protein p53	X02469	191170	CCG-CAC Arg175His
tumor protein p53	X02469	191170	CAT-CGT His193Arg
tumor protein p53	X02469	191170	tCGA-TGA Arg213Term
tumor protein p53	X02469	191170	gCGT-TGT Arg273Cys
tumor protein p53	X02469	191170	TGT-TAT Cys275Tyr
tumor protein p53	X02469	191170	tGAG-AAG Glu180Lys
tumor protein p53	X02469	191170	CGC-CAC Arg181His
tumor protein p53	X02469	191170	gCGC-TGC Arg181Cys
tumor protein p53	X02469	191170	cCGA-TGA Arg196Term
tumor protein p53	X02469	191170	TAT-TGT Tyr220Cys
tumor protein p53	X02469	191170	cTCT-ACT Ser227Thr
tumor protein p53	X02469	191170	AAC-AGC Asn235Ser
tumor protein p53	X02469	191170	CGA-CCA Arg306Pro
tumor protein p53	X02469	191170	cCAC-AAC His233Asn
tumor protein p53	X02469	191170	ATCC-ATG Ile251Met
tumor protein p53	X02469	191170	TCC-TTC Ser241Phe
tumor protein p53	X02469	191170	CGG-CAG Arg248Gln
tumor protein p53	X02469	191170	GGC-GAC Gly245Asp
tumor protein p53	X02469	191170	cGGC-AGC Gly245Ser
tumor protein p53	X02469	191170	cGGG-TGG Arg282Trp
tumor protein p53	X02469	191170	cGGG-TGC Gly245Cys
tumor protein p53	X02469	191170	cGGG-TGG Arg248Trp
tumor protein p53	X02469	191170	CTC-CCC Leu252Pro
tumor protein p53	X02469	191170	gGAA-AAA Glu258Lys
tumor protein p53	X02469	191170	CTG-CAG Leu257Gln
tumor protein p53	X02469	191170	CTG-CCG Leu265Pro
tumor protein p53	X02469	191170	gCGA-TGA Arg306Term
tumor protein p53	X02469	191170	gGTG-TTG Val272Leu
tumor protein p53	X02469	191170	CGT-CAT Arg273His
tumor protein p53	X02469	191170	GGA-GTA Gly325Val

tumor protein p53	X02469	191170	CCT-CTT Pro278Leu
tumor protein p53	X02469	191170	GAA-GCA Glu286Ala
tumor protein p53	X02469	191170	gCGC-TGC Arg337Cys
tumor protein p53	X02469	191170	CTG-CCG Leu344Pro
tumor protein p53	X02469	191170	ARG249SER
tumor protein p53	X02469	191170	VAL157PHE
tumor protein p53	X02469	191170	CYS242TYR
tumor protein p53	X02469	191170	1-BP INS, 151C frameshift
tumor protein p53	X02469	191170	2-BP DEL, frameshift
tumor protein p53	X02469	191170	CODONS 209-210
tumor protein p53	X02469	191170	1-BP INS, CODONS frameshift
		71-72	
tumor protein p53	X02469	191170	LYS120TER
tumor protein p53	X02469	191170	ARG280THR
tumor protein p53	X02469	191170	PRO151THR
tumor protein p53	X02469	191170	LEU35PHE
tumor protein p53	X02469	191170	1-BP DEL, CODON
		257	
tumor protein p53	X02469	191170	ALA138PRO
tumor protein p53	X02469	191170	1-BP DEL Codon frameshift
		178	
tumor necrosis factor	X01394	191160	LEU29SER
alpha (TNFa)			
tumor necrosis factor	X01394	191160	-1,031 T-->C
alpha (TNFa)			
tumor necrosis factor	X01394	191160	-863 C-->A
alpha (TNFa)			
tumor necrosis factor	X01394	191160	C-850T
alpha (TNFa)			
tumor necrosis factor	X01394	191160	G-238 A
alpha (TNFa)			

tumor necrosis factor alpha (TNFa)	X01394	191160	G-376 A
tumor necrosis factor alpha (TNFa)	X01394	191160	C to T, -857T
tumor necrosis factor alpha (TNFa)	X01394	191160	-308 G/A
tumor necrosis factor alpha (TNFa)	X01394	191160	Ncol
tumor necrosis factor alpha (TNFa)	X01394	191160	C-ins 5UTR of exon 1
tumor necrosis factor alpha (TNFa)	X01394	191160	ARG32TRP
tumor necrosis factor alpha (TNFa)	X01394	191160	G-376A
2',5'-oligoadenylate synthetase 1 (OAS1)	NM_006187	164350	none found
2',5'-oligoadenylate synthetase 2 (OAS2)	M87284	603350	none found
2',5'-oligoadenylate synthetase 3 (OAS3)	*****	603351	none found
excision repair protein ERCC1	M13194	126380	codon 118 C-->T silent
xeroderma pigmentosum complementation group A	D14533	278700	ILE132MET
xeroderma pigmentosum complementation group A	D14533	278700	ASP80VAL
xeroderma pigmentosum complementation group A	D14533	278700	ASP201GLY

pigmentosum complementation			
group A xeroderma	D14533	278700	56 CCTTG to FS20TER CCTTG A
pigmentosum complementation			
group A xeroderma	D14533	278700	EX8DEL
pigmentosum complementation			
group A xeroderma	D14533	278700	LEU41PRO
pigmentosum complementation			
group A xeroderma	D14533	278700	24AA+
pigmentosum complementation			
group A xeroderma	D14533	278700	PHE74LEU
pigmentosum complementation			
group A xeroderma	D14533	278700	ASP194ASN
pigmentosum complementation			
group A xeroderma	D14533	278700	ASP193ASN
pigmentosum complementation			
group A			

xeroderma	D14533	278700	SER110LEU
pigmentosum			
complementation			
group A			
xeroderma	D14533	278700	3-BP DEL VALL179DEL
pigmentosum			
complementation			
group A			
xeroderma	D14533	278700	VAL130ASP
pigmentosum			
complementation			
group A			
xeroderma	D14533	278700	ALA161SER
pigmentosum			
complementation			
group A			
xeroderma	D14533	278700	SER104ARG
pigmentosum			
complementation			
group A			
xeroderma	D14533	278700	PHE199VAL
pigmentosum			
complementation			
group A			
xeroderma	D14533	278700	GLY70GLU
pigmentosum			
complementation			
group A			
xeroderma	D14533	278700	GLY71ARG
pigmentosum			
complementation			

group A			GLN108TER
xeroderma	D14533	278700	
pigmentosum			
complementation			
group A			HIS203ASP
xeroderma	D14533	278700	
pigmentosum			
complementation			
group A			ARG44LYS
xeroderma	D14533	278700	
pigmentosum			
complementation			
group A			ASP176TYR
xeroderma	D14533	278700	
pigmentosum			
complementation			
group A			2-BP DEL, GT DEL frameshift
xeroderma	D14533	278700	
pigmentosum			
complementation			
group A			1-BP DEL, TTA- frameshift
xeroderma	D14533	278700	TA
pigmentosum			
complementation			
group A			40-BP DEL, FS frameshift
xeroderma	D14533	278700	
pigmentosum			
complementation			
group A			G+5A intron 8
xeroderma	D14533	278700	
pigmentosum			

complementation			
group A			
xeroderma	D14533	278700	ATAG-TTTG intron 8
pigmentosum			
complementation			
group A			
xeroderma	D14533	278700	GTAAGT-to- GTAAAT intron 7
pigmentosum			
complementation			
group A			
xeroderma	D14533	278700	AG-to-TG last 2 nucleotides of intron 1
pigmentosum			
complementation			
group A			
xeroderma	D14533	278700	PRO176LEU
pigmentosum			
complementation			
group A			
xeroderma	D14533	278700	ARG51GLY
pigmentosum			
complementation			
group A			
xeroderma	D14533	278700	ARG51TER
pigmentosum			
complementation			
group A			
xeroderma	D14533	278700	MET56THR
pigmentosum			
complementation			
group A			
xeroderma	D14533	278700	MET143LYS

pigmentosum complementation			
group A xeroderma	D14533	278700	ARG170TER
pigmentosum complementation			
group A xeroderma	D14533	278700	13-BP DEL, 5'- PRIME UTR
pigmentosum complementation			
group A xeroderma	D14533	278700	EX2DEL
pigmentosum complementation			
group A xeroderma	D14533	278700	EX4-9DEL
pigmentosum complementation			
group A xeroderma	D14533	278700	EX6-9DEL
pigmentosum complementation			
group A xeroderma	D14533	278700	EX9DEL
pigmentosum complementation			
group A xeroderma	D14533	278700	null allele
pigmentosum complementation			
group A			

xeroderma	D14533	278700	G insertion at about nucleotide 207
pigmentosum			
complementation			
group A			
xeroderma	D14533	278700	INV/DEL, EX6-9
pigmentosum			
complementation			
group A			
xeroderma	D14533	278700	duplication of exons 2 and 3 and deletion of intron 1
pigmentosum			
complementation			
group A			
xeroderma	D14533	278700	THR168ILE
pigmentosum			
complementation			
group A			
xeroderma	D14533	278700	GLY16SER
pigmentosum			
complementation			
group A			
xeroderma	D14533	278700	GLY58ARG
pigmentosum			
complementation			
group A			
xeroderma	D14533	278700	LEU78VAL
pigmentosum			
complementation			
group A			
xeroderma	D14533	278700	EX6DEL
pigmentosum			
complementation			

group A	xeroderma	D14533	278700	T insertion nucleotide at either nucleotide 14823 or 14824
complementation	group A			ASP52GLY
xeroderma	xeroderma	D14533	278700	
pigmentosum	complementation			
group A	xeroderma	D14533	278700	GLY140ASP
complementation	group A			
xeroderma	xeroderma	D14533	278700	ASP194GLU
pigmentosum	complementation			
group A	xeroderma	D14533	278700	TYR153TER
complementation	group A			
xeroderma	xeroderma	D14533	278700	
pigmentosum	complementation			
group A	metallothionein 1b	AH00151	156349	none found
complementation	group A			
metallothionein 1e		0		
metallothionein 1f		M10942	156351	none found
metallothionein 1g		M10943	156352	none found
metallothionein 2a		J03910	156353	none found
metallothionein 2a	NM_0059	156360		BamHI
	53			
metallothionein 3	NM_0059	139255		none found
asparagine synthetase	M27396	108370		none found
	54			

ornithine	M16650	165640	none found
decarboxylase 1 (ODC1)			
O6 alkylguanine-DNA	M60761	156569	1034A>G
alkyltransferase	M60761	156569	1099C>T
O6 alkylguanine-DNA	M60761	156569	79G>T
alkyltransferase	M60761	156569	GGA to AGA gly160arg
O6 alkylguanine-DNA	M60761	156569	PRO622LEU
alkyltransferase	U03911	120435	
mismatch repair			splice variant DEL 50
protein HMSH2	U03911	120435	CODONS
mismatch repair			ARG406TER
protein HMSH2	U03911	120435	
mismatch repair			HIS639TYR
protein HMSH2	U03911	120435	
mismatch repair			3-BP DEL ASN596DEL
protein HMSH2	U03911	120435	
mismatch repair			C1801T GLN601TER
protein HMSH2	U03911	120435	
mismatch repair			ARG524PRO
protein HMSH2	U03911	120435	
mismatch repair			1-BP DEL
protein HMSH2	U03911	120435	TGT705TT
mismatch repair			22-BP INS 289 codon 97
protein HMSH2	U03911	120435	
mismatch repair			GLY322ASP
protein HMSH2	U03911	120435	

mismatch repair protein hMSH2	U03911	120435	A-943+3-T DEL Exon 5
mismatch repair protein hMSH2	U03911	120435	C>T at codon 389
mismatch repair protein hMSH2	U03911	120435	711bp CGA>TGA arg>ter
mismatch repair protein hMSH2	U03911	120435	C/T promoter
mismatch repair protein hMSH2	U03911	120435	CTT to TTT at phe>leu codon 390
mismatch repair protein hMSH2	U03911	120435	1-bp insertion in exon 12 codon 888 del C
mismatch repair protein hMSH2	U03911	120435	T-to-C exon 13
mismatch repair protein hMSH2 cytochrome P450	X13589	107910	ARG435CYS
aromatase (CYP19) cytochrome P450	X13589	107910	CYS437TYR
aromatase (CYP19) cytochrome P450	X13589	107910	splice donor 29 extra amino (GT>GC) of intron 6 acids
aromatase (CYP19) cytochrome P450	X13589	107910	ARG375CYS
aromatase (CYP19) cytochrome P450	X13589	107910	1-BP DEL, 408C frameshift
aromatase (CYP19) cytochrome P450	X13589	107910	GT to AT exon and intron 3
aromatase (CYP19) cytochrome P450	X13589	107910	G-1094 -A ARG365GLN
aromatase (CYP19) cytochrome P450	X13589	107910	G-->A at Val80 silent

aromatase (CYP19)	X13589	107910	G-to-A Val370-to-Met
cytochrome P450			
aromatase (CYP19)	X13589	107910	(TTA)n in intron 5
cytochrome P450			
aromatase (CYP19)	X13589	107910	Arg264cys
cytochrome P450			
aromatase (CYP19)	M11050	138040	ASP641VAL
glucocorticoid receptor	M11050	138040	4-BP DEL 2 bases of the
glucocorticoid receptor	M11050	138040	exon and the
			first 2
			nucleotides of
			intron 6
glucocorticoid receptor	M11050	138040	LEU753PHE
glucocorticoid receptor	M11050	138040	ILE747THR
glucocorticoid receptor	M11050	138040	CYS736SER
glucocorticoid receptor	M11050	138040	CYS736THR
glucocorticoid receptor	M11050	138040	ASN363SER
glucocorticoid receptor	M11050	138040	Base-pair deletion in 32 amino acid
			exon 9 deletion
glucocorticoid receptor	M11050	138040	Q710X
glucocorticoid receptor	M11050	138040	L753F
glucocorticoid receptor	M11050	138040	trinucleotide Arg453
			insertion
glucocorticoid receptor	M11050	138040	T insertion 1188 and frameshift
			1189
glucocorticoid receptor	M11050	138040	A to G 3'-splice frameshift
glucocorticoid receptor	M11050	138040	junction of intron G
glucocorticoid receptor	M11050	138040	BcII
glucocorticoid receptor	U25029	138040	ItbIII
			none found

alpha glucocorticoid receptor	X03348	138040	none found
beta multidrug resistance protein MDR1	X96395	171050	GLY185VAL
multidrug resistance protein MDR1	X96395	171050	Ser893Ala
multidrug resistance protein MDR1	X96395	171050	HindIII
progesterone receptor	M15716	264080	
insulin-like growth factor binding protein 2	X16302	146731	EcoRI
insulin-like growth factor binding protein 4	M62403	146733	none found
multidrug resistance protein MDR2	NM_000392	601107	none found
lipocorin 1/annexin 1	V00546	151690	none found
androgen receptor	M20132	313700	PARTIAL DEL
androgen receptor	M20132	313700	ARG773CYS
androgen receptor	M20132	313700	TRP717TER
androgen receptor	M20132	313700	VAL866MET
androgen receptor	M20132	313700	TRP794TER
androgen receptor	M20132	313700	LYS588TER
androgen receptor	M20132	313700	TYR761CYS
androgen receptor	M20132	313700	LYS882TER
androgen receptor	M20132	313700	ARG772CYS
androgen receptor	M20132	313700	ALA771THR
androgen receptor	M20132	313700	MET786VAL
androgen receptor	M20132	313700	VAL730MET
androgen receptor	M20132	313700	(CAG)n
androgen receptor	M20132	313700	ARG773HIS

androgen receptor	M20132	313700	ARG607GLN
androgen receptor	M20132	313700	VAL865MFT
androgen receptor	M20132	313700	VAL865LEU
androgen receptor	M20132	313700	ARG855HIS
androgen receptor	M20132	313700	ILE869MFT
androgen receptor	M20132	313700	GLN60TER
androgen receptor	M20132	313700	5-KB DEL,EX E
androgen receptor	M20132	313700	5-KB DEL, EX F,G
androgen receptor	M20132	313700	ARG608LYS
androgen receptor	M20132	313700	ARG839HIS
androgen receptor	M20132	313700	ARG839CY S
androgen receptor	M20132	313700	THR877ALA
androgen receptor	M20132	313700	LEU676PRO
androgen receptor	M20132	313700	THR877SER
androgen receptor	M20132	313700	HIS874TYR
androgen receptor	M20132	313700	GLN902ARG
androgen receptor	M20132	313700	ALA721THR
androgen receptor	M20132	313700	SER647ASN
androgen receptor	M20132	313700	LEU707ARG
androgen receptor	M20132	313700	CYS579PHE
androgen receptor	M20132	313700	PHE582TYR
androgen receptor	M20132	313700	PRO546SER
androgen receptor	M20132	313700	GLU2LYS
androgen receptor	M20132	313700	MET780ILE
androgen receptor	M20132	313700	ARG846HIS
androgen receptor	M20132	313700	Insert of 69 nucleotides
androgen receptor	M20132	313700	LEU172TER
androgen receptor	M20132	313700	(CAA)n
androgen receptor	M20132	313700	(GGN)n
androgen receptor	M20132	313700	pro892ser

androgen receptor	M20132	313700	598 or 599 ter
androgen receptor	M20132	313700	Del T at 3286 frameshift
androgen receptor	M20132	313700	Gln798Glu
androgen receptor	M20132	313700	G214R
androgen receptor	M20132	313700	G Codon 210 A
androgen receptor	M20132	313700	G Codon 211 A
androgen receptor	M20132	313700	Arg615His
androgen receptor	M20132	313700	Arg752Gln
androgen receptor	M20132	313700	C>T within exon B, silent
androgen receptor	M20132	313700	G2677A glu629arg
androgen receptor	M20132	313700	Stu I
androgen receptor	M20132	313700	arg726leu
androgen receptor	M20132	313700	del1893 frameshift
androgen receptor	M20132	313700	arg840his
androgen receptor	M20132	313700	Hind III
androgen receptor	M20132	313700	val 581 phe
androgen receptor	M20132	313700	MaeIII
androgen receptor	M20132	313700	CAG340TAG Gln>Ter
androgen receptor	M20132	313700	gly743val
androgen receptor	M20132	313700	HpaII
androgen receptor	M20132	313700	Hhal
androgen receptor	M20132	313700	G2314A ala>thr
androgen receptor	M20132	185430	asp317 his
clustin/TRPM-2	M64722	185430	codon 328 (G-->A) asp328asp
clustin/TRPM-2	M64722	164810	T->C transition in
fos proto-oncogene	K00650	164810	intron 2
myc proto-oncogene	V00568	190080	PRO59ALA
myc proto-oncogene	V00568	190080	PRO57SER
myc proto-oncogene	V00568	190080	ASN86THR
myc proto-oncogene	V00568	190080	GLU39ASP
bleomycin hydrolase	X92106	602403	1450A-G ILE443VAL

estrogen receptor 1 (ESR1)	M12674	133430	done
estrogen receptor 2 (ESR2)	X99101	601663	done
trefoil factor 1/sP2	X00474	113710	1-BP INS Codons 38 to 41
Bcl-2 associated protein/bax	L22473	600040	1-BP DEL Codons 38 to 41
Bcl-2 associated protein/bax	L22473	600040	GLY67ARG
Bcl-2 associated protein/bax	L22473	600040	7-BP DEL codons 38 to 41
protein kinase C alpha	X52479	176960	ASP294GLY
protein kinase C beta 1	X06318	176970	none found
protein kinase C delta	L07861	176977	none found
protein kinase C mu	X75756	*****	none found
protein kinase C theta	L01087	600448	none found
protein kinase C zeta	L14283	176982	none found
insulin-like growth factor binding protein 1	NM_000596	146730	none found
insulin-like growth factor binding protein 10	U62015	602369	none found
insulin-like growth factor binding protein 3	NM_000598	146732	none found
insulin-like growth factor binding protein 5	L227560	146734	none found
insulin-like growth factor binding protein 6	M69054	146735	none found
insulin-like growth	L19182	602867	none found

factor binding protein 7				
interferon gamma	NM_000874	602376	none found	
receptor 2 (IFNGR2)	X77722	107450	none found	
interferon alpha	U68755	147569	Gln64Arg	
receptor 1 (IFNAR1)	V00546	147640	none found	
interferon alpha	L07633	147570	CA repeat ittron 1	
receptor 2 (IFNAR2)	(IFNb1)			
interferon beta				
interferon gamma	(IFNg)			
interferon gamma	L07633	147570	CGA to CAA Arg140Gln	
interferon gamma	(IFNg)	147570	G5644A	
interferon gamma	J03143	107470	395C-A SER-TER	
receptor 1 (IFNGR1)				
interferon gamma	J03143	107470	1-BP DEL frameshift	
receptor 1 (IFNGR1)				
interferon gamma	J03143	107470	ILE87THR	
receptor 1 (IFNGR1)				
interferon gamma	J03143	107470	4-BP INS 104 to 107 frameshift	
receptor 1 (IFNGR1)				
interferon gamma	J03143	107470	IVS3	
receptor 1 (IFNGR1)				
interferon gamma	J03143	107470	4-BP DEL truncated	
receptor 1 (IFNGR1)			protein	
interferon gamma	J03143	107470	Val14Met	
receptor 1 (IFNGR1)				
interferon gamma	J03143	107470	TaqI	
receptor 1 (IFNGR1)				

interferon omega1 (IFNw1)	X02669	147553	none found
interleukin 1 alpha (IL1a)	M15329	147760	C to T -889
interleukin 1 alpha (IL1a)	M15329	147760	Dinucleotide repeat
interleukin 1 alpha (IL1a)	M15329	147760	46 bp tandem repeat intron 6
interleukin 1 beta (IL1b)	K02770	147720	TaqI
interleukin 1 beta (IL1b)	K02770	147720	+5887 C -> T
interleukin 1 beta (IL1b)	K02770	147720	position -511
interleukin 1 beta (IL1b)	K02770	147720	exon 5 (position +3953)
interleukin 1 beta (IL1b)	K02770	147720	Asp106Asn
interleukin 1 receptor (IL-1R)	M27492	147810	PstI
interleukin 10 (IL10)	M57627	124092	G -1082 A
interleukin 10 (IL10)	M57627	124092	C-to-A 571
interleukin 10 (IL10)	M57627	124092	A-597 C
interleukin 10 (IL10)	M57627	124092	T -824 C
interleukin 10 (IL10)	M57627	124092	second dinucleotide repeat
interleukin 10 (IL10)	M57627	124092	A -592 C
interleukin 10 (IL10)	M57627	124092	2 CA repeat
interleukin 10 receptor alpha (IL-10Ra)	U00672	146933	none found
interleukin 11 (IL11)	X58377	147681	5' dinucleotide

interleukin 12a (IL12a)	M65271	161560	repeat
interleukin 12b (IL12b)	M65272	161561	none found
interleukin 13 (IL13)	X69079	147683	4,4-KB DEL
interleukin 15 (IL15)	U14407	600554	none found
interleukin 15 receptor	U31628	601070	none found
alpha (IL-15Ra)			none found
interleukin 16 (IL16) NM_0045	603035	600953	none found
13	*****	600953	none found
interleukin 18 (IL18)	X01586	147680	-330
interleukin 2 (IL2)	X01586	147680	166
interleukin 2 (IL2)	X01586	147680	Dinucleotide Repeat
interleukin 2 (IL2)	X01586	147680	AUUUA motif
interleukin 2 (IL2)	X01586	147680	deleted
interleukin 2 receptor	X01057	147730	4-BP DEL 60 to 64 frameshift
alpha (IL-2Ra)			
interleukin 2 receptor	X01057	147730	TaqI
alpha (IL-2Ra)			
interleukin 2 receptor	M26062	146710	CA repeat
beta (IL-2Rb)	D11086	308380	LYS97TER
interleukin 2 receptor			
gamma (IL-2Rg)	D11086	308380	ARG267TER
interleukin 2 receptor			
gamma (IL-2Rg)	D11086	308380	SER286TER
interleukin 2 receptor			
gamma (IL-2Rg)	D11086	308380	CYS62TER
interleukin 2 receptor			
gamma (IL-2Rg)	D11086	308380	GLY114ASP
gamma (IL-2Rg)			

interleukin 2 receptor gamma (IL-2Rg)	D11086	308380	G-to-A first position of intron 3
interleukin 2 receptor gamma (IL-2Rg)	D11086	308380	ILE153ASN
interleukin 2 receptor gamma (IL-2Rg)	D11086	308380	LEU271GLN
interleukin 2 receptor gamma (IL-2Rg)	D11086	308380	9-BP DUP GLN-HIS-TRP TNS
interleukin 2 receptor gamma (IL-2Rg)	D11086	308380	CYS115ARG
interleukin 2 receptor gamma (IL-2Rg)	D11086	308380	ARG285GLN
interleukin 2 receptor gamma (IL-2Rg)	D11086	308380	ARG222CY S
interleukin 2 receptor gamma (IL-2Rg)	D11086	308380	690-691 hotspot
interleukin 2 receptor gamma (IL-2Rg)	D11086	308380	none found
interleukin 3 (IL3)	M20137	147740	none found
interleukin 3 alpha	M74782	308385	none found
receptor (IL-3aR)			
interleukin 4 (IL4)	M113982	147780	C-589T
interleukin 4 (IL4)	M113982	147780	Dinucleotide Repeat
interleukin 4 receptor	X52425	147781	intron 2 -285 C-T -81 A-G
(IL-4R)			GLN576ARG
interleukin 4 receptor	X52425	147781	ILE50VAL
(IL-4R)			
interleukin 4 receptor	X52425	147781	S503P
(IL-4R)			
interleukin 5 (IL5)	X04688	147850	none found

interleukin 5 receptor alpha (IL-5Ra)	M96652	147851	Dimucleotide repeat
interleukin 6 receptor (IL-6R) (20)	M20566	147880	dinucleotide (CA)
interleukin 7 (IL-7)	J04156	146660	none found
interleukin 7 receptor (IL-7R)	M29696	146661	THR66ILE
interleukin 7 receptor (IL-7R)	M29696	146661	ILE138VAL
interleukin 7 receptor (IL-7R)	M29696	146661	AG-to-AA splice junction intron 4
interleukin 7 receptor (IL-7R)	M29696	146661	trp217 to ter
interleukin 8 (IL8)	M26383	146930	HindIII
interleukin 8 receptor alpha (IL-8Ra)	M68932	146929	none found
interleukin 8 receptor beta (IL-8Rb)	M94582	146928	none found
interleukin 9 (IL9)	X17543	146931	Dimucleotide repeat
interleukin 9 receptor (IL-9R)	M84747	300007	none found
interleukin receptor 11 alpha (IL-11a)	U32324	600939	none found
interleukin receptor 12 beta (IL-12b)	U03187	601604	GLN32TER
interleukin receptor 12 beta (IL-12b)	U03187	601604	GLN376TER
interleukin receptor 12 beta (IL-12b)	U03187	601604	409-549DEL frameshift
interleukin receptor 12 beta2 (IL-12b2)	U03187	601642	none found

interleukin receptor 13	\$80963	300119	none found
alpha (IL-13a)			
interleukin receptor 13	X95302	300130	none found
alpha2 (IL-13a2)			
lipocortin 2/annexin 2	D00017	151740	none found
lipocortin 3/annexin 3	M20560	106490	tandem repeat TAAA
lipocortin 3/annexin 3	M20560	106490	Sall
lipocortin 3/annexin 3	M20560	106490	BgIII
lipocortin 5/annexin 5 NM_0011	54	131230	EcoRI
lipocortin 5/annexin 5 NM_0011	54	131230	PvuII
lipocortin 7/annexin 7 NM_0040		186360	none found
(splice variant 1)	34		
lipocortin 7/annexin 7 NM_0011	56	186360	none found
(splice variant 2)			
trefoil factor 2/TFF2	X51698	182590	25 bp tandem repeat
trefoil factor 3/sP2	L08044	600633	none found

Table 19. Identified Variances in Genes or Related Pathways involved in Neurological or Psychiatric Disease

Nicotinic, Cholinergic receptor beta 1	X14830	100710	LEU263MET
Nicotinic, Cholinergic receptor beta 1	X14830	100710	VAL266MET

Nicotinic, Cholinergic receptor, muscle <sup>d</sup>	X55019	100720	none found
Nicotinic, Cholinergic receptor epsilon polypeptide	X66403	100725	ARG147LEU
Nicotinic, Cholinergic receptor epsilon polypeptide	X66403	100725	ARG64TER
Nicotinic, Cholinergic receptor epsilon polypeptide	X66403	100725	LEU269PHE
Nicotinic, Cholinergic receptor epsilon polypeptide	X66403	100725	PRO121LEU
Nicotinic, Cholinergic receptor epsilon polypeptide	X66403	100725	THR264PRO
Nicotinic, Cholinergic receptor epsilon polypeptide	X66403	100730	none found
Nicotinic, Cholinergic receptor, muscle <sup>g</sup>	NM_005199	100740	1431 C/T 446 silent
Acetylcholinesterase/A CHE	M55040	100740	408 G/C arg561pro
Acetylcholinesterase/A CHE	M55040	100740	HIS322ASN
adenosine deaminase NM_000022	NM_000022	102700	LYS80ARG
adenosine deaminase NM_000022	NM_000022	102700	ARG101TRP
adenosine deaminase NM_000022	NM_000022	102700	ARG101GLN

adenosine deaminase NM_00000	102700	ARG211HIS
adenosine deaminase NM_00000 22	102700	LEU304ARG
adenosine deaminase NM_00000 22	102700	ALA329VAL
adenosine deaminase NM_00000 22	102700	ALA39VAL
adenosine deaminase NM_00000 22	102700	3.25-KB DEL
adenosine deaminase NM_00000 22	102700	PRO297GLN
adenosine deaminase NM_00000 22	102700	ARG76TRP
adenosine deaminase NM_00000 22	102700	ARG149GLN
adenosine deaminase NM_00000 22	102700	PRO274LEU
adenosine deaminase NM_00000 22	102700	LEU107PRO
adenosine deaminase NM_00000 22	102700	ARG211CYS
adenosine deaminase NM_00000 22	102700	ALA215THR
adenosine deaminase NM_00000 22	102700	GLY216ARG
adenosine deaminase NM_00000 22	102700	IVS3AS, A-G, -2 EX4DEL
adenosine deaminase NM_00000 22	102700	ARG156CYS
adenosine deaminase NM_00000 22	102700	SER291LEU

adenosine deaminase NM_00000 22	102700	IVS10AS, G-A, -34
adenosine deaminase NM_00000 22	102700	ASP8ASN
adenosine deaminase NM_00000 22	102700	IVS2DS, G-A, +1
adenosine deaminase NM_00000 22	102700	7-BP INS, IVS8AS
adenosine deaminase NM_00000 22	102700	IVS1DS, G-C, +1
adenosine deaminase NM_00000 22	102700	GLY74VAL
adenosine deaminase NM_00000 22	102700	IVS5DS, G-A, +1, EX5 DEL 116-BP DEL
adenosine deaminase NM_00000 22	102700	LEU152MET
adenosine deaminase NM_00000 22	102700	THR233ILE
adenosine deaminase NM_00000 22	102700	TYR97CYS
adenosine deaminase NM_00000 22	102700	LEU106VAL
adenosine deaminase NM_00000 22	102700	G74C
adenosine deaminase NM_00000 22	102700	V129M
adenosine deaminase NM_00000 22	102700	G140E
adenosine deaminase NM_00000 22	102700	R149W

adenosine deaminase NM_0000 22	102700	Q199P
adenosine deaminase NM_0000 22	102700	462delG
adenosine deaminase NM_0000 22	102700	E337del
adenosine deaminase NM_0000 22	102700	tetrancleotide repeat
adenosine deaminase NM_0000 22	102700	Q3X
adenosine deaminase NM_0000 22	102700	R142Q
adenosine deaminase NM_0000 22	102700	R142X
adenosine deaminase NM_0000 22	102700	PstI
adenosine deaminase NM_0000 22	102700	G to A at the invariant 5' GT of intron 7
adenosine deaminase NM_0000 22	102700	Glu 217 Lys
adenosine deaminase NM_0000 22	102700	del exon 7
adenosine deaminase NM_0000 22	102700	Apa I
Adenosine A1 Receptor; Adora1/G protein-coupled	102775	1777C/A
Adenosine A1 Receptor; Adora1/G protein-coupled	102775	1827C/T

Adenosine A1 Receptor; Adora1/G protein-coupled	L22214	102775	1904C/T
Adenosine A1 Receptor; Adora1/G protein-coupled	L22214	102775	2126G/T
Adenosine A1 Receptor; Adora1/G protein-coupled	L22214	102775	2294insT
Adenosine A1 Receptor; Adora1/G protein-coupled	L22214	102775	267 + 275C/T
Adenosine A1 Receptor; Adora1/G protein-coupled	L22214	102775	2776C/T
Adenosine A1 Receptor; Adora1/G protein-coupled	L22214	102775	2777del36
Adenosine A1 Receptor; Adora1/G protein-coupled	L22214	102775	2819T/G
Adenosine A1 Receptor; Adora1/G protein-coupled	L22214	102775	805T/G
Adenosine A1 Receptor; Adora1/G protein-coupled	L22214	102775	48T/A
Adenosine A1 Receptor; Adora1/G protein-coupled	L22214	102775	716T/G
Adenosine A2 Receptor; Adora1/G protein-coupled	X68486	102776	1083C/T

Receptor; Adora2a/G protein-coupled Adenosine A2	X68486	102776	405C/T
Receptor; Adora2a/G protein-coupled Adenosine A2	X68486	102776	432C/T
Receptor; Adora2a/G protein-coupled Adenosine A2	X68486	102776	Gly-340-Ser
Receptor; Adora2a/G protein-coupled Adenosine A2	*****	102777	none found
Receptor- like/ADORA2L1 adenylate-cyclase activating polypeptide 1	D17516	102981	none found
receptor/ADCYAP1R1 alpha-2a-adrenergic receptor; ADRA2A	M118415	104210	-1291
alpha-2a-adrenergic receptor; ADRA2A	M118415	104210	DraI
alpha-2a-adrenergic receptor; ADRA2A	M118415	104210	HhaI
alpha-2a-adrenergic receptor; ADRA2A	M118415	104210	MspI promoter
alpha-2a-adrenergic receptor; ADRA2A	M76446	104219	none found
alpha-1a-adrenergic receptor; ADRA1A	L31773	104220	none found
alpha-1b-adrenergic receptor; ADRA1B	D25235	104221	PstI

receptor; ADRA1C	M76446	104222	none found
alpha-1d-adrenergic receptor; ADRA1D	J03853	104250	(CA)n
alpha-2c-adrenergic receptor; ADRA2C	AF005900	104260	none found
alpha-2b-adrenergic receptor; ADRA2B	NM_0000 21	104311	IVS8AS, G-T, -1, EX9DEL
presenilin 1	NM_0000 21	104311	1-BP DEL, G
presenilin 1	NM_0000 21	104311	intron 3' to exon 8
presenilin 1	NM_0000 21	104311	T/G intron 9
presenilin 1	NM_0000 21	104311	HIS163ARG
presenilin 1	NM_0000 21	104311	ALA246GLU
presenilin 1	NM_0000 21	104311	ALA426PRO
presenilin 1	NM_0000 21	104311	ARG278THR
presenilin 1	NM_0000 21	104311	CYS410TYR
presenilin 1	NM_0000 21	104311	GLU120ASP
presenilin 1	NM_0000 21	104311	GLU280ALA
presenilin 1	NM_0000 21	104311	GLU280GLY

presenilin 1	NM_00000	104311	Glu318Gly
presenilin 1	NM_00000	104311	gly378glu
presenilin 1	NM_00000	104311	HIS163TYR
presenilin 1	NM_00000	104311	LEU250SER
presenilin 1	NM_00000	104311	Leu262Phe
presenilin 1	NM_00000	104311	Leu282Arg
presenilin 1	NM_00000	104311	LEU286VAL
presenilin 1	NM_00000	104311	Lys123glu
presenilin 1	NM_00000	104311	MET139VAL
presenilin 1	NM_00000	104311	MET146ILE
presenilin 1	NM_00000	104311	MET146LEU
presenilin 1	NM_00000	104311	MET146VAL
presenilin 1	NM_00000	104311	PRO267SER
presenilin 1	NM_00000	104311	Pro436Gln
presenilin 1	NM_00000	104311	Ser169Leu
Human cerebrovascular	M16765	104760	

and neuritic plaque amyloid beta-protein mRNA, 3' end	M87290	106165	1166A-C
angiotensin receptor 1/AGTR1A			250-bp in/del
angiotensin converting enzyme/dipeptidyl carboxypeptidase	NM_0007 89	106180	
angiotensin converting enzyme/dipeptidyl carboxypeptidase	NM_0007 89	106180	3 in the 3' UTR
angiotensin converting enzyme/dipeptidyl carboxypeptidase	NM_0007 89	106180	5 in the 5' region
angiotensin converting enzyme/dipeptidyl carboxypeptidase	NM_0007 89	106180	Pst I RFLP
angiotensin converting enzyme/dipeptidyl carboxypeptidase	J03171	107450	none found
Interferon (alpha,beta, omega) receptor 1			
apolipoprotein E/APOE	NM_0000 41	107741	7 AA insertion; tandem repeat of residues 121-127
apolipoprotein E/APOE	NM_0000 41	107741	A178G Threonine42Ala nine
apolipoprotein E/APOE	NM_0000 41	107741	A490C Lysine146Gluta mine
apolipoprotein E/APOE	NM_0000 41	107741	A490G Lysine146Gluta mic Acid
apolipoprotein E/APOE	NM_0000 41	107741	A940C Serine296Argini ne
apolipoprotein			Aintron3G substitution

41	creates 2 abnormally spliced mRNA forms	C305G Proline84Argini
NM_000041	107741	ne
NM_000041	107741	Arginine136Ser
NM_000041	107741	ne
NM_000041	107741	C478T Arg142142Cys1
NM_000041	107741	42
NM_000041	107741	C487T Arginine145Cys
NM_000041	107741	teine
NM_000041	107741	C526T Arginine158Cys
NM_000041	107741	teine
NM_000041	107741	C736T Arginine228Cys
NM_000041	107741	teine
NM_000041	107741	C805G Arg251251Gly2
NM_000041	107741	51
	G144deletion Leucine60Termination Codon (frameshift)	G144deletion Leucine60Termination Codon (frameshift)
NM_000041	107741	G349A Ala9999Thr99
NM_000041	107741	G434A Gly127127Asp1
NM_000041	107741	27
NM_000041	107741	G455A Arginine134Glu
NM_000041	107741	tamine
NM_000041	107741	G488A Arginine145His
NM_000041	107741	tidine
NM_000041	107741	G568C Ala152Proline
		41

apolipoprotein E/APOE	NM_0000 41	107741	G61A Glutamic Acid3Lysine
apolipoprotein E/APOE	NM_0000 41	107741	G683A Tryptophan210 Termination
apolipoprotein E/APOE	NM_0000 41	107741	Codon
apolipoprotein E/APOE	NM_0000 41	107741	G725A Arg224224Gln2 24
apolipoprotein E/APOE	NM_0000 41	107741	G875A Arginine274His tidine
apolipoprotein E/APOE	NM_0000 41	107741	G91A Glutamic Acid13Lysine
apolipoprotein E/APOE	NM_0000 41	107741	GAG-GAG844- Glu244/Glu245 849AAG-AAG 244- 245Lys244/Lys 245
apolipoprotein E/APOE	NM_0000 41	107741	T137C Leucine28Proline e
apolipoprotein E/APOE	NM_0000 41	107741	T388C Cysteine112Arg inine
apolipoprotein E/APOE	NM_0000 41	107741	T761A Valine236Gluta mic Acid
Aromatic L-Amino Acid Decarboxylase/AADC/ dopa decarboxylase Benzodiazepine receptor; peripheral type	M76180	107930	SspI
beta-1-adrenergic receptor; Adrb1 beta-1-adrenergic	J03019	109630	Bgl I.
	J03019	109630	C1165G ARG389GLY

receptor; Adrb1	NM_0016	109635	none found
beta-adrenergic receptor kinase 1	<u>19</u>		
Beta-Adrenergic Receptor Kinase 2; Adrbk2	X69117	109636	none found
Beta-2-Adrenergic Receptor; Adrb2	M15169	109690	Fnu4HI
Beta-2-Adrenergic Receptor; Adrb2	M15169	109690	A->G -1343
Beta-2-Adrenergic Receptor; Adrb2	M15169	109690	C->G -468
Beta-2-Adrenergic Receptor; Adrb2	M15169	109690	G->A -1023
Beta-2-Adrenergic Receptor; Adrb2	M15169	109690	G->A -654
Beta-2-Adrenergic Receptor; Adrb2	M15169	109690	T->A -1429
Beta-2-Adrenergic Receptor; Adrb2	M15169	109690	T->C -20
Beta-2-Adrenergic Receptor; Adrb2	M15169	109690	T->C -367
Beta-2-Adrenergic Receptor; Adrb2	M15169	109690	T->C -47
Beta-2-Adrenergic Receptor; Adrb2	M15169	109690	ARG16GLY
Beta-2-Adrenergic Receptor; Adrb2	M15169	109690	GLN27GLU
Beta-2-Adrenergic Receptor; Adrb2	M15169	109690	Thr164Ile

Beta-2-Adrenergic Receptor; Adrb2	M15169	109690	val 34 met
Beta-3-Adrenergic Receptor; Adrb3	X70811	109691	intron 1 g1856t
Beta-3-Adrenergic Receptor; Adrb3	X70811	109691	TRP64ARG
serotonin 5-HT receptors 5-HT1A, G protein-coupled bradykinin receptor B2/BDKRB2 G protein-coupled	X57829	109760	RsaI
bradykinin receptor B2/BDKRB2 G	NM_000623	113503	-143C/T
bradykinin receptor B2/BDKRB2 G	NM_000623	113503	-412C/G
bradykinin receptor B2/BDKRB2 G protein-coupled	NM_000623	113503	-536C/T
bradykinin receptor B2/BDKRB2 G protein-coupled	NM_000623	113503	-640T/C
bradykinin receptor B2/BDKRB2 G protein-coupled	NM_000623	113503	-649insG
bradykinin receptor B2/BDKRB2 G protein-coupled	NM_000623	113503	-704C/T
bradykinin receptor B2/BDKRB2 G protein-coupled	NM_000623	113503	-78C/T
bradykinin receptor B2/BDKRB2 G protein-coupled	NM_000623	113503	-845C/T

B2/BDKRB2 G	23			
protein-coupled bradykinin receptor	NM_0006 23	113503	9 bp de (-)21-29	
B2/BDKRB2 G				
protein-coupled bradykinin receptor	NM_0006 23	113503	C>T promoter 54	
B2/BDKRB2 G				
protein-coupled bradykinin receptor	NM_0006 23	113503	repeat 3'UTR	
B2/BDKRB2 G				
protein-coupled bradykinin receptor	NM_0006 23	113503	tandem repeat near promoter	
B2/BDKRB2 G				R14C
protein-coupled bradykinin receptor	NM_0006 23	113503		
B2/BDKRB2 G				T21M
protein-coupled bradykinin receptor	NM_0006 23	113503		
B2/BDKRB2 G				
protein-coupled L-type voltage dependent calcium	NM_0007 19	114205	none found	
channel alpha 1C subunit/CACNA1C				
L-type voltage dependent calcium	NM_0000 69	114208	ARG1086HIS	
channel alpha 1S subunit/CACNA1S				
L-type voltage dependent calcium	NM_0000 69	114208	ARG1239GLY	
channel alpha 1S				

subunit/CACNA1S	NM_00000	114208	ARG1239HIS
L-type voltage dependent calcium channel alpha 1S	NM_00000	114208	ARG528HIS
subunit/CACNA1S	NM_00000	114208	ARG528HIS
L-type voltage dependent calcium channel alpha 1S	NM_00000	114208	ARG528HIS
subunit/CACNA1S	NM_00000	114240	ARG572GLN
calpain, large polypeptide L3/CAPN3	NM_00000	114240	ARG110TER
calpain, large polypeptide L3/CAPN3	NM_00000	114240	ARG110TER
calpain, large polypeptide L3/CAPN3	NM_00000	114240	ARG769GLN
calpain, large polypeptide L3/CAPN3	NM_00000	114240	PRO319LEU
calpain, large polypeptide L3/CAPN3	NM_00000	114240	SER86PHE
calpain, large polypeptide L3/CAPN3	NM_00000	114240	1359G-->A silent
cannabinoid receptor NM_001840	114610	1359G-->A silent	1/G protein-coupled/CNR1
Catechol-O-Methyltransferase	M58525	116790	186C > T at exon 3
Catechol-O-Methyltransferase	M58525	116790	408C > G at exon 4

Catechol-O-Methyltransferase	M58525	116790	472G > A at exon 4
Catechol-O-Methyltransferase	M58525	116790	597G > A at exon 5
Catechol-O-Methyltransferase	M58525	116790	821-827insC at the 3'
Catechol-O-Methyltransferase	M58525	116790	BglI
Catechol-O-Methyltransferase	M58525	116790	C256G silent
Catechol-O-Methyltransferase	M58525	116790	G/A1947
Catechol-O-Methyltransferase	M58525	116790	MspI
Catechol-O-Methyltransferase	M58525	116790	NlaIII
Catechol-O-Methyltransferase	M58525	116790	val-108-met
Catechol-O-Methyltransferase	M58525	116790	Val158-->Met
Catechol-O-Methyltransferase	M114221	116810	10-bp insertion in the 3'-UT
cathepsin B/b-aCTS Bmyloid precursor protein	M114221	116810	CYS26ARG
precursor protein			EcoRI
secretase/CTS B			
cathepsin B/b-aCTS Bmyloid precursor protein	M114221	116810	

secretase/CTSB	M14221	116810	TaqI
cathepsin B/b-			
aCTS Bmyloid			
precursor protein			
secretase/CTSB			
Cholecystokinin A			
receptor/CCKAR	L13605	118444	GLY21ARG
Cholecystokinin A	L13605	118444	VAL365ILE
receptor/CCKAR	L08112	118445	1550 G-->A Val125-->Ile
Cholecystokinin B	L08112	118445	CAT 207 CAC His207His
receptor/CCKBR	L08112	118445	Arg215His
Cholecystokinin B	L08112	118445	Val138Met
receptor/CCKBR	L08112	118445	A1503G
Cholecystokinin B	NM_00000	118470	
receptor/CCKBR	78		G-A splice junction alternative splice
plasma cholesterol	NM_00000	118470	
ester transfer	78		
protein/CETP			G1696A
plasma cholesterol	NM_00000	118470	
ester transfer	78		C-T transition in intron 12
protein/CETP	NM_00000	118470	
plasma cholesterol	78		EcoNI
ester transfer	NM_00000	118470	
protein/CETP	78		
plasma cholesterol	NM_00000	118470	
ester transfer	78		

protein/CETP	plasma cholesterol ester transfer	NM_00000 78	118470	G->A intron 14
protein/CETP	plasma cholesterol ester transfer	NM_00000 78	118470	G-A transition in intron 15
protein/CETP	plasma cholesterol ester transfer	NM_00000 78	118470	G1533A
protein/CETP	plasma cholesterol ester transfer	NM_00000 78	118470	INS T alternative (intron/exon14) splice
protein/CETP	plasma cholesterol ester transfer	NM_00000 78	118470	StuI
protein/CETP	plasma cholesterol ester transfer	NM_00000 78	118470	T->G tyr57stop
protein/CETP	plasma cholesterol ester transfer	NM_00000 78	118470	TaqIA
protein/CETP	plasma cholesterol ester transfer	NM_00000 78	118470	TaqIB in intron 1
protein/CETP	plasma cholesterol ester transfer	NM_00000 78	118470	268 Arg-->STOP
protein/CETP	plasma cholesterol ester transfer	NM_00000 78	118470	Asp 442 to Gly

plasma cholesterol ester transfer protein/CETP	NM_000078	118470	ASP442GLY
plasma cholesterol ester transfer protein/CETP	NM_000078	118470	G181X
plasma cholesterol ester transfer protein/CETP	NM_000078	118470	I405V
plasma cholesterol ester transfer protein/CETP	NM_000078	118470	Lys309-Stop
plasma cholesterol ester transfer protein/CETP	NM_000078	118470	R451Q
plasma cholesterol ester transfer protein/CETP	NM_000078	118470	Val421-Ile
plasma cholesterol ester transfer protein/CETP	NM_000078	118470	none found
Choline acetyltransferase/CHA	NM_003055	118490	none found
Cholinergic Receptor, Muscarinic, 2; CHRM2	U19800	118493	none found
Cholinergic Receptor, Muscarinic, 3; CHRM3	U29589	118494	none found
Cholinergic Receptor, Muscarinic, 4; CHRM4	M16405	118495	SstI
Cholinergic Receptor, Muscarinic, 5; CHRM5	AF026263	118496	none found
Nicotinic, Cholinergic receptor alpha 2	U62431	118502	none found

Nicotinic, Cholinergic receptor alpha 3	X53559	118503	none found
Nicotinic, Cholinergic receptor alpha 4	U62433	118504	3-BP INS, 776GCT
Nicotinic, Cholinergic receptor alpha 4	U62433	118504	Cfol exon 5
Nicotinic, Cholinergic receptor alpha 4	U62433	118504	Dinucleotide intron 1
Nicotinic, Cholinergic receptor alpha 4	U62433	118504	fok1
Nicotinic, Cholinergic receptor alpha 4	U62433	118504	PvuII
Nicotinic, Cholinergic receptor alpha 4	U62433	118504	SER-TER
Nicotinic, Cholinergic receptor alpha 4	U62433	118504	SER248PHE
Nicotinic, Cholinergic receptor alpha 4	U62433	118504	none found
Nicotinic, Cholinergic receptor alpha 5	M83712	118505	none found
Nicotinic, Cholinergic receptor beta 2	Y08415	118507	none found
Nicotinic, Cholinergic receptor beta 3	X67513	118508	none found
Nicotinic, Cholinergic receptor beta 4	X68275	118509	none found
Cholinergic Receptor, Muscarinic, 1; CHRM1	X15263	118510	none found
Nicotinic, Cholinergic receptor alpha 7	U40583	118511	none found
ciliary neurotrophic factor receptor/CNTFR	NM_001842	118946	none found
Corticotropin releasing	U16273	122561	none found

hormone receptor 1 diazepam binding inhibitor/DBI	M15887	125950	none found
Human dihydrofolate reductase gene	J00140	126060	
Dopamine Receptor D1	X58987	126449	C/T Isoleucine49
Dopamine Receptor D2	X51362	126450	141 C ins/del
Dopamine Receptor D2	X51362	126450	A241G
Dopamine Receptor D2	X51362	126450	NcoI RFLP
Dopamine Receptor D2	X51362	126450	TaqI A, TaqI B,
Dopamine Receptor D2	X51362	126450	TaqI D, and (CA)n
			STRP
Dopamine Receptor D2	X51362	126450	Serine
Dopamine Receptor D3	U32499	126451	311Cysteine
Dopamine Receptor D3	U32499	126451	exonic Ball
Dopamine Receptor D3	U32499	126451	polymorphism
Dopamine Receptor D3	U32499	126451	intronic MspI
Dopamine Receptor D4	L12398	126452	polymorphism
Dopamine Receptor D4	L12398	126452	Serine9Glycine
Dopamine Receptor D4	L12398	126452	12 bp
Dopamine Receptor D4	L12398	126452	duplication/deletion
Dopamine Receptor D4	L12398	126452	in exon 1
Dopamine Receptor D4	L12398	126452	12 bp tandem repeat
Dopamine Receptor D4	L12398	126452	in extracellular N-
Dopamine Receptor D4	L12398	126452	terminal part of
Dopamine Receptor D4	L12398	126452	receptor
Dopamine Receptor D4	L12398	126452	12 bp VNTR in exon
Dopamine Receptor D4	L12398	126452	1
Dopamine Receptor D4	L12398	126452	48 bp VNTR in exon
Dopamine Receptor D4	L12398	126452	3
Dopamine Receptor D4	L12398	126452	48 bp VNTR in exon

Dopamine Receptor D4	L12398	126452	48 bp VNTR in exon 3
Dopamine Receptor D4	L12398	126452	48 bp VNTR in third cytoplasmic loop
Dopamine Receptor D4	L12398	126452	exon 1 -- nondeleted sequence in 13bp deletion site
Dopamine Receptor D4	L12398	126452	exon 3 (48 bp repeat)
Dopamine Receptor D4	L12398	126452	exon 3 (position 194) -- common valine producing T at glycine subst site
Dopamine Receptor D4	L12398	126452	poly G in intron 1
Dopamine Receptor D4	L12398	126452	Smal cutting site (bands of 413bp and 302bp) in 5' noncoding region
Dopamine Receptor D4	L12398	126452	Smal RFLP in 5' noncoding region
Dopamine Receptor D5	M67439	126453	(TC)n
Dopamine Receptor D5	M67439	126453	dinucleotide repeat poly (CT/GT/GA)n
Dopamine Receptor D5	M67439	126453	T978C P326P
Dopamine Receptor D5	M67439	126453	transmembrane L88F domain II
Dopamine Transporter/ DAT1	L24178	126455	40-bp VNTR in the 3'-untranslated
Dopamine Transporter/ DAT1	L24178	126455	5' TaqI RFLP

Dopamine Transporter/ DAT1	L24178	126455	9-repeat allele
estrogen receptor 1 (ESR1)	M12674	133430	RFLP (PstI enzyme)
estrogen receptor 1 (ESR1)	M12674	133430	RFLP (PvuII enzyme)
Solute Carrier Family 1, Member 1; Scl1a1	U08989	133550	none found
Gamma-Aminobutyric Acid Receptor, Alpha- 2; Gabra2	S62907	137140	none found
Gamma-Aminobutyric Acid Receptor, Alpha- 4; Gabra4	U30461	137141	none found
Gamma-Aminobutyric Acid Receptor, Alpha- 5; Gabra5	L08485	137142	Dinucleotide repeat
Gamma-Aminobutyric Acid Receptor, Alpha- 6; Gabra6	S81944	137143	none found
GABA-g-glutamate transaminase	NM_00066	137150	3' DELETION
GABA-g-glutamate transaminase	NM_00066	137150	ARG220LYS
Gamma-Aminobutyric Acid Receptor, Alpha- 1; Gabra1	X14766	137160	Dinucleotide repeat
Gamma-Aminobutyric Acid Receptor Subunit Rho1	M62400	137161	PstI
Gamma-Aminobutyric	M86868	137162	none found

Acid Receptor Subunit				
Rho2				
Gamma-Aminobutyric Acid Receptor, Delta;	AF016917	137163	none found	
Gabrd				
Gamma-Aminobutyric Acid Receptor, Gamma-2;	X15376	137164	NcII	
Gabry2				
Solute carrier family 6 (GABA), member 1/SLC6A1	X54673	137165	none found	
Gamma-Aminobutyric Acid Receptor, Gamma-1;	*****	137166	none found	
Gabry1				
Gamma-Aminobutyric Acid Receptor, Beta-1;	X14767	137190	C-->G his396glu	
Gabri1				
Gamma-Aminobutyric Acid Receptor, Beta-3;	M82919	137192	Dinucleotide repeat	
Gabri3				
glucagon-like peptide 1 receptor/GLP1R	U01156	138032	silent substitution in exon 6	
glucagon-like peptide 1 receptor/GLP1R	U01156	138032	simple tandem repeat DNA polymorphism	
glucagon receptor/GCGR	NM_000160	138033	Alu-repeat	
glucagon receptor/GCGR	NM_000160	138033	GLY40SER	

Glutamate dehydrogenase 1	X07674	138130	G/A at nt 955
Glutamate dehydrogenase 1	X07674	138130	TaqI
Glutamate dehydrogenase 1	X07674	138130	GLY446ASP
Glutamate dehydrogenase 1	X07674	138130	GLY446SER
Glutamate dehydrogenase 1	X07674	138130	HIS454TYR
Glutamate dehydrogenase 1	X07674	138130	SER445LEU
Glutamate dehydrogenase 1	X07674	138130	SER448PRO
Glutamate dehydrogenase 1 mitochondrial	NM_00200	138150	none found
glutamate oxaloacetate transaminase 2/GOT2	80		
soluble glutamate oxaloacetate transaminase 1/GOT1	NM_00200	138180	none found
Glutamate Receptor, Ionotropic, Kainate 3; Grik3	U16127	138243	none found
Glutamate Receptor, Ionotropic, Kainate 2; Grik2	S75105	138244	trinucleotide repeat 3'
Glutamate Receptor, Ionotropic, Kainate 1; Grik1	U16125	138245	none found
Glutamate Receptor, Ionotropic, Ampa 4;	NM_000829	138246	none found

Gria4	Glutamate Receptor, Ionotropic, Ampa 2;	L20814	138247	none found
Gria2	Glutamate Receptor, Ionotropic, Ampa 1;	M64752	138248	none found
Grial	Glutamate Receptor, Ionotropic, N-Methyl-D-Asp 1; Grin1	L113266	138249	none found
Grial	Glutamate Receptor, Ionotropic, N-Methyl-D-Asp A; GrinA	*****	138251	none found
Grial	Glutamate Receptor, Ionotropic, N-Methyl-D-Asp 2b; Grin2b	U228758	138252	none found
Grial	Glutamate Receptor, Ionotropic, N-Methyl-D-Asp 2a; Grin2a	U090002	138253	none found
Grial	Glutamate Receptor, Ionotropic, N-Methyl-D-Asp 2c; Grin2c	L76224	138254	none found
Grial	Glutamate decarboxylase 2 (brain, 65kD)	X69936	138275	(CA) repeat polymorphism
Grial	Glutamate decarboxylase 3		138276	none found
Grial	Glycine Receptor, Alpha-1 Subunit; Gira1	X52009	138491	null allele
Grial	Glycine Receptor, Alpha-1 Subunit; Gira1	X52009	138491	ARG271GLN

Glycine Receptor, Alpha-1 Subunit; Glra1	X52009	138491	ARG271LEU
Glycine Receptor, Alpha-1 Subunit; Glra1	X52009	138491	GLN266HIS
Glycine Receptor, Alpha-1 Subunit; Glra1	X52009	138491	ILE244ASN
Glycine Receptor, Alpha-1 Subunit; Glra1	X52009	138491	LYS276GLU
Glycine Receptor, Alpha-1 Subunit; Glra1	X52009	138491	P250T
Glycine Receptor, Alpha-1 Subunit; Glra1	X52009	138491	TYR279CYS
Glycine Receptor, Alpha-1 Subunit; Glra1	X52009	138491	none found
Glycine Receptor, Beta Subunit; Glrb	U33267	138492	ARG262GLN
gonadotropin releasing hormone receptor/G protein-coupled/LHRHR/GNR	NM_000406	138850	GLN106ARG
gonadotropin releasing hormone receptor/G protein-coupled/LHRHR/GNR	NM_000406	138850	Mae III
gonadotropin releasing hormone receptor/G protein-coupled/LHRHR/GNR	NM_000406	138850	TYR284CYS

protein-coupled/LHRHR/GNR	HR	growth hormone releasing hormone receptor/G protein-coupled/GHRHR	U34195	139191	IVS8DS, G-C, -1 alternative splice
growth hormone releasing hormone receptor/G protein-coupled/GHRHR	U34195	139191	1-BP DEL frameshift		
growth hormone releasing hormone receptor/G protein-coupled/GHRHR	U34195	139191	2-BP DEL frameshift		
growth hormone releasing hormone receptor/G protein-coupled/GHRHR	U34195	139191	C to T codon 236, silent		
growth hormone releasing hormone receptor/G protein-coupled/GHRHR	U34195	139191	EX4,6DEL		
growth hormone releasing hormone receptor/G protein-coupled/GHRHR	U34195	139191	GAA180GAG silent		
growth hormone releasing hormone receptor/G protein-coupled/GHRHR	U34195	139191	IVS4DS, G-A, +1 alternative splice		

growth hormone releasing hormone receptor/G protein- coupled/GHRHR	U34195	139191	IVS6AS, G-T, -1
growth hormone releasing hormone receptor/G protein- coupled/GHRHR	U34195	139191	IVS8AS, G-C, -1
growth hormone releasing hormone receptor/G protein- coupled/GHRHR	U34195	139191	IVS9DS, G-A, +1 frameshift
growth hormone releasing hormone receptor/G protein- coupled/GHRHR	U34195	139191	P561T
growth hormone releasing hormone receptor/G protein- coupled/GHRHR	U34195	139191	ARG161CYS
growth hormone releasing hormone receptor/G protein- coupled/GHRHR	U34195	139191	ARG217TER
growth hormone releasing hormone receptor/G protein- coupled/GHRHR	U34195	139191	ARG43TER
growth hormone releasing hormone receptor/G protein- coupled/GHRHR	U34195	139191	ASP152HIS

coupled/GHRHR growth hormone releasing hormone receptor/G protein- coupled/GHRHR	U34195	139191	CYS38TER
growth hormone releasing hormone receptor/G protein- coupled/GHRHR	U34195	139191	GLN154PRO
growth hormone releasing hormone receptor/G protein- coupled/GHRHR	U34195	139191	GLU224ASP
growth hormone releasing hormone receptor/G protein- coupled/GHRHR	U34195	139191	GLU224TER
growth hormone releasing hormone receptor/G protein- coupled/GHRHR	U34195	139191	GLU44LYS
growth hormone releasing hormone receptor/G protein- coupled/GHRHR	U34195	139191	ILE153THR
growth hormone releasing hormone receptor/G protein- coupled/GHRHR	U34195	139191	PHE96SER
growth hormone releasing hormone receptor/G protein- coupled/GHRHR	U34195	139191	PRO131GLN

receptor/G protein-coupled/GHRHR	U34195	139191	VAL144ILE
growth hormone releasing hormone receptor/G protein-coupled/GHRHR	U34195	139191	VAL155GLY
growth hormone releasing hormone receptor/G protein-coupled/GHRHR	M64799	142703	A649G
Histidine Decarboxylase	M60445	142704	none found
HMGCoA reductase/HMGCR	NM_000859	142910	HgiAI
HMGCoA reductase/HMGCR	NM_000859	142910	Scrf1 polymorphism in the 2nd intron
Superoxide Dismutase 1/SOD1 (soluble)	NM_000454	147450	T-G, -10, 9-BP INS
Superoxide Dismutase 1/SOD1 (soluble)	NM_000454	147450	VS4AS, A-G, -11
Superoxide Dismutase 1/SOD1 (soluble)	NM_000454	147450	ALA145THR
Superoxide Dismutase 1/SOD1 (soluble)	NM_000454	147450	ALA4THR
Superoxide Dismutase 1/SOD1 (soluble)	NM_000454	147450	ALA4VAL
Superoxide Dismutase 1/SOD1 (soluble)	NM_000454	147450	ASPP90ALA
Superoxide Dismutase 1/SOD1 (soluble)	NM_000454	147450	CYS6PHE

Superoxide Dismutase	NM_0004	147450	GLU100GLY
1/SOD1 (soluble)	54		
Superoxide Dismutase	NM_0004	147450	GLU21LYS
1/SOD1 (soluble)	54		
Superoxide Dismutase	NM_0004	147450	GLY16SER
1/SOD1 (soluble)	54		
Superoxide Dismutase	NM_0004	147450	GLY37ARG
1/SOD1 (soluble)	54		
Superoxide Dismutase	NM_0004	147450	GLY41ASP
1/SOD1 (soluble)	54		
Superoxide Dismutase	NM_0004	147450	GLY41SER
1/SOD1 (soluble)	54		
Superoxide Dismutase	NM_0004	147450	GLY72SER
1/SOD1 (soluble)	54		
Superoxide Dismutase	NM_0004	147450	GLY85ARG
1/SOD1 (soluble)	54		
Superoxide Dismutase	NM_0004	147450	GLY93ALA
1/SOD1 (soluble)	54		
Superoxide Dismutase	NM_0004	147450	GLY93CYS
1/SOD1 (soluble)	54		
Superoxide Dismutase	NM_0004	147450	HIS43ARG
1/SOD1 (soluble)	54		
Superoxide Dismutase	NM_0004	147450	HIS46ARG
1/SOD1 (soluble)	54		
Superoxide Dismutase	NM_0004	147450	ILE104THE
1/SOD1 (soluble)	54		
Superoxide Dismutase	NM_0004	147450	ILE113THR
1/SOD1 (soluble)	54		
Superoxide Dismutase	NM_0004	147450	LEU106VAL
1/SOD1 (soluble)	54		
Superoxide Dismutase	NM_0004	147450	LEU126TER

1/SOD1 (soluble)	54		
Superoxide Dismutase	NM_0004	147450	LEU144SER
1/SOD1 (soluble)	54		
Superoxide Dismutase	NM_0004	147450	LEU38VAL
1/SOD1 (soluble)	54		
Superoxide Dismutase	NM_0004	147450	LEU84VAL
1/SOD1 (soluble)	54		
Superoxide Dismutase	NM_0004	147450	SER134ASN
1/SOD1 (soluble)	54		
Superoxide Dismutase	NM_0004	147450	THR151ILE
1/SOD1 (soluble)	54		
Superoxide Dismutase	NM_0004	147450	Val7-->Glu
1/SOD1 (soluble)	54		
Superoxide dismutase	X02317	147450	ALA16VAL
1 (Cu/Zn)			
Superoxide Dismutase	X65965	147460	
2/SOD2 (mitochondrial)			
Human clone pSK1	U05875	147569	Gln64Arg
interferon gamma			
receptor accessory			
factor-1 (AF-1)			
mRNA, complete cds	J03778	157140	+39deltaG triton 4
MICROTUBULE- ASSOCIATED			
PROTEIN TAU			
MICROTUBULE- ASSOCIATED	J03778	157140	IVS10, A-G, +13
PROTEIN TAU			
MICROTUBULE- ASSOCIATED	J03778	157140	IVS10, C-U, +14

PROTEIN TAU	J03778	157140	IVS10, C-U, +16
MICROTUBULE-ASSOCIATED PROTEIN TAU	J03778	157140	IVS10, G-A, +1
MICROTUBULE-ASSOCIATED PROTEIN TAU	J03778	157140	ARG406TRP
MICROTUBULE-ASSOCIATED PROTEIN TAU	J03778	157140	ASN279LYS
MICROTUBULE-ASSOCIATED PROTEIN TAU	J03778	157140	GLY272VAL
MICROTUBULE-ASSOCIATED PROTEIN TAU	J03778	157140	PRO301LEU
MICROTUBULE-ASSOCIATED PROTEIN TAU	J03778	157140	SER305ASN
MICROTUBULE-ASSOCIATED PROTEIN TAU	J03778	157140	VAL337MET
MICROTUBULE-ASSOCIATED PROTEIN TAU	J03778	157140	HincII
PROTEIN TAU			HindIII
nerve growth factor receptor/NGFR	NM_002507	162010	Two TaqI sites
nerve growth factor receptor/NGFR	NM_002507	162010	
nerve growth factor receptor/NGFR	NM_002507	162010	

nerve growth factor NM_0025 receptor/NGFR 07	162010	XmnI
H.sapiens encoding PC1/PC3	X64810	162150 IVSS5DS, A-C, +4
H.sapiens encoding PC1/PC3	X64810	162150 GLY483ARG
Tachykinin NK2 receptor/TACR2	M57414	162321 none found
Tachykinin NK1 receptor/TACR1	M81797	162323 none found
Tachykinin NK3 receptor/TACR3	M89473	162332 none found
neuromedin B receptor/protein- coupler/NMBR	*****	162341 none found
Neuropeptide Y receptor Y1/NPY1R	K01911	162640 LEU7PRO
Neuropeptide Y receptor Y2/NPY2R	M84755	162641 none found
Neuropeptide Y receptor Y3/chemokine receptor 4/CXCR4	U32500	162642 none found
Neurotensin receptor	X71635	162643 none found
Human AD amyloid mRNA, complete cds	X70070	162651 Tetranucleotide repeat
Human AD amyloid mRNA, complete cds	L08850	163890 Dinucleotide repeat
Human AD amyloid mRNA, complete cds	L08850	163890 ALA30PRO
Human AD amyloid mRNA, complete cds	L08850	163890 ALA53THR

Human AD amyloid precursor protein, complete cds	L08850	163890	G209A
Solute carrier family 6, NM_001043 member 5/S1.C6A2/NAT1/NET 1 (glycine)	NM_001043	163970	none found
Human obese (ob) mRNA, complete cds	U18915	164160	-1387 G/A
Human obese (ob) mRNA, complete cds	U18915	164160	1-BP DEL frameshift
Human obese (ob) mRNA, complete cds	U18915	164160	A --> G + 19 exon1
Human obese (ob) mRNA, complete cds	U18915	164160	C(-188)A
Human obese (ob) mRNA, complete cds	U18915	164160	ARG105TRP
Human obese (ob) mRNA, complete cds	U18915	164160	Glu-126-Gln
Human obese (ob) mRNA, complete cds	U18915	164160	Ser-91-Ser
Human obese (ob) mRNA, complete cds	U18915	164160	T to C in codon 307 silent
Opioid Receptor, Delta-1; Opioid Receptor, Kappa-1; Opioid Receptor, Kappa-1; Opioid Receptor, Oxytocin receptor	U10504	165195	none found
Oxytocin receptor	U17298	165196	C to T exon 3
Human peptidylglycine alpha-amidating monoxygenase	X64878	167055	CA repeat
Phenol-preferring	NM_0010	171150	none found
			Arg213His

sulfotransfase, family 1A, member 1/SLC17A1	55		
phenylethanolamine N-methyltransferase/PN MT	171190	BANI	
phospholipid transfer protein/PLTP	NM_00622	172425	TaqIB
Methenyltetrahydrofolate cyclohydrolase	27		ARG293HIS
prolactin receptor/PRLR	J04031	172460	
Adrenocorticotrophic hormone (ACTH) hormone (ACTH)	NM_0009	176761	none found
Adrenocorticotrophic hormone (ACTH) hormone (ACTH)	49		
Adrenocorticotrophic hormone (ACTH) hormone (ACTH)	M28636	176830	3804C-A
Adrenocorticotrophic hormone (ACTH) hormone (ACTH)	M28636	176830	7013G-T
Adrenocorticotrophic hormone (ACTH) hormone (ACTH)	M28636	176830	7133C DEL
butyrylcholinesterase	NM_00000	177400	209 A/G Asp-70 to Gly
1/serum cholinesterase	55		
1/Bc [HE]			
butyrylcholinesterase	NM_00000	177400	342-bp Alu in exon Alu insertion two
1/serum cholinesterase	55		
1/Bc [HE]			
butyrylcholinesterase	NM_00000	177400	A-to-G Y128C
1/serum cholinesterase	55		
1/Bc [HE]			
butyrylcholinesterase	NM_00000	177400	GCA to ACA ALA539THR
1/serum cholinesterase	55		
1/Bc [HE]			
butyrylcholinesterase	NM_00000	177400	GGT to GTT Gly 390 to Val

1/serum cholinesterase	55		
1/B <sup>C</sup> HE1	NM_00000	177400	GGT-to-GGAG Gly 117 Frameshift
butyrylcholinesterase	NM_55		
1/serum cholinesterase	55		
1/B <sup>C</sup> HE1	NM_00000	177400	E451X
butyrylcholinesterase	NM_55		
1/serum cholinesterase	55		
1/B <sup>C</sup> HE1	NM_00000	177400	F446V
butyrylcholinesterase	NM_55		
1/serum cholinesterase	55		
1/B <sup>C</sup> HE1	NM_00000	177400	G365R
butyrylcholinesterase	NM_55		
1/serum cholinesterase	55		
1/B <sup>C</sup> HE1	NM_00000	177400	GLU497VAL
butyrylcholinesterase	NM_55		
1/serum cholinesterase	55		
1/B <sup>C</sup> HE1	NM_00000	177400	Gly115 by Asp
butyrylcholinesterase	NM_55		
1/serum cholinesterase	55		
1/B <sup>C</sup> HE1	NM_00000	177400	LEU330ILE
butyrylcholinesterase	NM_55		
1/serum cholinesterase	55		
1/B <sup>C</sup> HE1	NM_00000	177400	Q119X
butyrylcholinesterase	NM_55		
1/serum cholinesterase	55		
1/B <sup>C</sup> HE1	NM_00000	177400	R515C
butyrylcholinesterase	NM_55		
1/serum cholinesterase	55		
1/B <sup>C</sup> HE1	NM_00000	177400	THR243MET
butyrylcholinesterase	NM_55		
1/serum cholinesterase	55		

			THR250PRO
1/B <sub>1</sub> /HE <sub>1</sub>	butyrylcholinesterase	NM_00000	177400
1/serum cholinesterase		<u>55</u>	
1/B <sub>1</sub> /HE <sub>1</sub>	butyrylcholinesterase	NM_00000	177400
1/serum cholinesterase		<u>55</u>	
1/B <sub>1</sub> /HE <sub>1</sub>	butyrylcholinesterase	*****	177500
2/serum cholinesterase			none found
2/B <sub>1</sub> /HE <sub>2</sub>	retinoic acid receptor gamma/RARG	M57707	180190
beta <sub>1</sub> RAR <sub>B</sub>	retinoic acid receptor	NM_0009	180220
beta <sub>1</sub> RAR <sub>B</sub>		<u>65</u>	none found
retinoic acid receptor alpha <sub>1</sub> /RARA		NM_0009	180240
alpha <sub>1</sub> /RARA	retinoic acid receptor	NM_0009	180240
alpha <sub>1</sub> /RARA		<u>64</u>	7-base deletion frameshift
retinoic acid receptor alpha <sub>1</sub> /RARA		NM_0009	180240
alpha <sub>1</sub> /RARA	retinoic acid receptor	NM_0009	180240
alpha <sub>1</sub> /RARA		<u>64</u>	codon 411 C to T
retinoic acid receptor alpha <sub>1</sub> /RARA		NM_0009	180240
retinoic acid receptor alpha <sub>1</sub> /RARA		<u>64</u>	Arg272Gln
retinoid X receptor alpha <sub>1</sub> /RXRA	retinoic acid receptor	NM_0029	180245
retinoid X receptor alpha <sub>1</sub> /RXRA		<u>57</u>	Met297Leu
retinoid X receptor beta <sub>1</sub> RXR <sub>B</sub>	retinoid X receptor	X66424	180246
retinoid X receptor gamma/RXR <sub>G</sub>	serotonin 5-HT receptors 5-HT1B, G	U38480	180247
serotonin 5-HT receptors 5-HT1B, G	protein-coupled	M81590	182131
			C129T

serotonin 5-HT receptors 5-HT1B, G protein-coupled	M81590	182131	G861C
serotonin 5-HT receptors 5-HT1E, G protein-coupled	M91467	182132	none found
serotonin 5-HT receptors 5-HT1D, G protein-coupled	M81590	182133	silent polymorphism
serotonin 5-HT receptors 5-HT1F, G protein-coupled	L05597	182134	none found
serotonin 5-HT receptors 5-HT2A, G protein-coupled	D87030	182135	-1438G/A.
serotonin 5-HT receptors 5-HT2A, G protein-coupled	D87030	182135	102T-C
serotonin 5-HT receptors 5-HT2A, G protein-coupled	D87030	182135	Hpall
serotonin 5-HT receptors 5-HT2A, G protein-coupled	D87030	182135	His452Tyr
serotonin 5-HT receptors 5-HT2A, G protein-coupled	L21195	182137	none found
serotonin 5-HT receptors 5-HT7, G protein-coupled	X70697	182138	PstI
serotonin transporter	X70697	182138	promoter 44-bp ins/del
serotonin transporter	X70697	182138	tandem repeat close

serotonin transporter	X70697	182138	two polyadenylation sites	to the promoter
serotonin transporter	X70697	182138	VNTR intron 2	
serotonin transporter	X70697	182138		silent polymorphism
serotonin 5-HT receptors 5-HT3, gated ion channel	D49394	182139	none found	
type I voltage dependent sodium channel alpha subunit/SCN1A	S71446	182389	none found	
type II voltage dependent sodium channel alpha 1 subunit/SCN2A1	M94055	182390	none found	
type III voltage dependent sodium channel alpha subunit/SCN3A	S69887	182391	none found	
type VI voltage dependent sodium channel alpha subunit/SCN6A	M55662	182392	none found	
Somatostatin receptor 1/G protein-coupled	M81829	182451	(CA) <sub>n</sub> 5'	
Somatostatin receptor 2	M81830	182452	TRP188TER	
Somatostatin receptor 3/activyl cyclase coupled	M96738	182453	none found	

Somatostatin receptor 4	L07833	182454	none found
Somatostatin receptor 5	D16827	182455	2 RFLP's promoter
Human rapamycin-binding protein (FKBp-13) mRNA, complete cds	M65128	186946	none found
thyrotropin releasing hormone receptor/G protein coupled/TRHR	X75071	188545	9-BP DEL deletion of 3 amino acids
thyrotropin releasing hormone receptor/G protein coupled/TRHR	X75071	188545	ALA118THR
thyrotropin releasing hormone receptor/G protein coupled/TRHR	X75071	188545	ARG171TER
thyrotropin releasing hormone receptor/G protein coupled/TRHR			none found
oncogene NM_001982		190151	
ERBB3/HER3	X52836	191060	-5806G>T
tryptophan Hydroxylase; TPH	X52836	191060	-6526A>G
tryptophan Hydroxylase; TPH	X52836	191060	-7065C>T
tryptophan Hydroxylase; TPH	X52836	191060	7180T>G
tryptophan Hydroxylase; TPH	X52836	191060	A218C in intron 7
tryptophan Hydroxylase; TPH	X52836	191060	A779C
tryptophan Hydroxylase; TPH	X52836	191060	A779C in intron 7
Hydroxylase; TPH			

tryptophan	X52836	191060	T1095C
Hydroxylase; 1PH			
Human tryptophan	U32989	191070	6G-->T intron
oxygenase (TDO)			
mRNA, complete cds			
Human tryptophan	U32989	191070	CCCCCT repeat
oxygenase (TDO)			
mRNA, complete cds			
Human tryptophan	U32989	191070	GTT repeat
oxygenase (TDO)			
mRNA, complete cds			
tyrosine hydroxylase	X05290	191290	(TCAT)n intron 1
tyrosine hydroxylase	X05290	191290	Bgu
tyrosine hydroxylase	X05290	191290	DraI
tyrosine hydroxylase	X05290	191290	PstI
tyrosine hydroxylase	X05290	191290	SalI
tyrosine hydroxylase	X05290	191290	T-229A
tyrosine hydroxylase	X05290	191290	[AATG]n
tyrosine hydroxylase	X05290	191290	ARG233HIS
tyrosine hydroxylase	X05290	191290	GLN381LYS
tyrosine hydroxylase	X05290	191290	LEU205PRO
tyrosine hydroxylase	X05290	191290	Val468Met
tyrosine hydroxylase	X05290	191290	Val81Met
neurotrophilic tyrosine	Y09033	191315	1-BP DEL, 1726C frameshift
kinase receptor type			
1/NTRK1			
neurotrophilic tyrosine	Y09033	191315	1810C>T
kinase receptor type			
1/NTRK1			
neurotrophilic tyrosine	Y09033	191315	1838G>T
kinase receptor type			

1/NTRK1	neurotrophic tyrosine kinase receptor type	Y09033	191315	Gl795C GLY571ARG
1/NTRK1	neurotrophic tyrosine kinase receptor type	Y09033	191315	IVS4, G-C, -1
1/NTRK1	neurotrophic tyrosine kinase receptor type	Y09033	191315	IVSDS, A-C, +3
1/NTRK1	neurotrophic tyrosine kinase receptor type	Y09033	191315	ARG774PRO
1/NTRK1	neurotrophic tyrosine kinase receptor type	Y09033	191315	ARG855SER]
1/NTRK1	neurotrophic tyrosine kinase receptor type	Y09033	191315	GLN9TER
1/NTRK1	neurotrophic tyrosine kinase receptor type	Y09033	191315	GLY607VAL
1/NTRK1	neurotrophic tyrosine kinase receptor type	Y09033	191315	HIS598TYR
1/NTRK1	neurotrophic tyrosine kinase receptor type	Y09033	191316	none found
1/NTRK1	neurotrophic tyrosine kinase receptor type	NM_002530	191316	none found
3/NTRK3	peptide receptor	*****	192321	none found
1/VIPR1	peptidc intestinal			

Vesicular Amine Transporter 2; VAT2	L09118	193001	TaqI
Vesicular Amine Transporter 1; VAT1	*****	193002	none found
melanocortin 2 receptor/ACTH receptor/MC2R	NM_000529	202200	1-BP INS frameshift
melanocortin 2 receptor/ACTH receptor/MC2R	NM_000529	202200	ARG128CYS
melanocortin 2 receptor/ACTH receptor/MC2R	NM_000529	202200	ARG201TER
melanocortin 2 receptor/ACTH receptor/MC2R	NM_000529	202200	ASP107ASN
melanocortin 2 receptor/ACTH receptor/MC2R	NM_000529	202200	CYS251PHE
melanocortin 2 receptor/ACTH receptor/MC2R	NM_000529	202200	SER120ARG
melanocortin 2 receptor/ACTH receptor/MC2R	NM_000529	202200	SER74ILE
melanocortin 2 receptor/ACTH receptor/MC2R	Y00096	223360	none found
dopamine beta hydroxylase	glutamate *****	229100	none found
formiminotransferase/dihydrofolate synthetase	5,10-	U09806	10277-G
		236250	

@METHYLENETET RAHYDROFOLATE REDUCTASE	5,10-	U09806	236250	1084C-T
@METHYLENETET RAHYDROFOLATE REDUCTASE	5,10-	U09806	236250	1298A-C
@METHYLENETET RAHYDROFOLATE REDUCTASE	5,10-	U09806	236250	1711C-T
@METHYLENETET RAHYDROFOLATE REDUCTASE	5,10-	U09806	236250	677C-T ala --> val
@METHYLENETET RAHYDROFOLATE REDUCTASE	5,10-	U09806	236250	983A-G
@METHYLENETET RAHYDROFOLATE REDUCTASE	5,10-	U09806	236250	exon 7 Ala-->Glu
@METHYLENETET RAHYDROFOLATE REDUCTASE	5,10-	U09806	236250	A225V
@METHYLENETET RAHYDROFOLATE REDUCTASE				

5,10-	U09806	236250	ARG158GLN
@METHYLENETETRAHYDROFOLATE REDUCTASE			
5,10-	U09806	236250	ARG184TER
@METHYLENETETRAHYDROFOLATE REDUCTASE			
Glycine cleavage system: Protein T	D13811	238310	1-BP DEL, 183C
Glycine cleavage system: Protein T	D13811	238310	ASP276HIS
Glycine cleavage system: Protein T	D13811	238310	GLY269ASP
Glycine cleavage system: Protein T	D13811	238310	GLY47ARG
Glycine cleavage system: Protein T	D13811	238310	HIS42ARG
6-pyruvoyl tetrahydrobiopterin synthase/PTPS	Q03393	261640	14-BP DEL K120-->Stop
6-pyruvoyl tetrahydrobiopterin synthase/PTPS	Q03393	261640	ARG16CYS
6-pyruvoyl tetrahydrobiopterin synthase/PTPS	Q03393	261640	ARG25GLN
6-pyruvoyl tetrahydrobiopterin synthase/PTPS	Q03393	261640	ASN47ASP
6-pyruvoyl tetrahydrobiopterin synthase/PTPS	Q03393	261640	ASN52SER

tetrahydrobiopterin synthase/PTPS	Q03393	261640	ASP116GLY
6-pyruvoyl tetrahydrobiopterin synthase/PTPS	Q03393	261640	ASP96ASN
6-pyruvoyl tetrahydrobiopterin synthase/PTPS	Q03393	261640	D136V
6-pyruvoyl tetrahydrobiopterin synthase/PTPS	Q03393	261640	K129E
6-pyruvoyl tetrahydrobiopterin synthase/PTPS	Q03393	261640	PRO87SER
6-pyruvoyl tetrahydrobiopterin synthase/PTPS	Q03393	261640	T67M
6-pyruvoyl tetrahydrobiopterin synthase/PTPS	Q03393	261640	VAL56MET
6-pyruvoyl tetrahydrobiopterin synthase/PTPS	Q03393	261640	none found
Glutamate decarboxylase 1 (brain, 67kD)	M81883	266100	none found
Human hydroxyindole-O-methyltransferase promoter A-derived (HOMT) mRNA, complete cds	U11090	300015	none found

angiotensin II receptor type 2/AGTR2	U10273	300034	none found
P2Y 4 pyrimidinergic receptor/G protein-coupled	NM_002565	300038	none found
Gamma-Aminobutyric Acid Receptor, Epsilon; Gabre bombesin-like receptor 3/BKSR3	Y09765	300093	none found
Glutamate dehydrogenase 2	NM_001727	300107	none found
ACETYL SEROTONI N MEDIATOR TRANSFER ASE-LIKE	U08997	300144	none found
Arginine vasopressin receptor 2	AF030626	304800	1-BP DEL
Arginine vasopressin receptor 2	AF030626	304800	1-BP DEL, 102G
Arginine vasopressin receptor 2	AF030626	304800	1-BP INS frameshift
Arginine vasopressin receptor 2	AF030626	304800	1-BP INS 804 frameshift
Arginine vasopressin receptor 2	AF030626	304800	15delC
Arginine vasopressin receptor 2	AF030626	304800	28-bp del
Arginine vasopressin receptor 2	AF030626	304800	786delG frameshift
Arginine vasopressin	AF030626	304800	CpG dinucleotides

Arginine vasopressin receptor 2	AF030626	304800	ALA132ASP
Arginine vasopressin receptor 2	AF030626	304800	ARG181CYS
Arginine vasopressin receptor 2	AF030626	304800	ARG113TRP
Arginine vasopressin receptor 2	AF030626	304800	ARG203CYS
Arginine vasopressin receptor 2	AF030626	304800	ARG337TER
Arginine vasopressin receptor 2	AF030626	304800	ASP85ASN
Arginine vasopressin receptor 2	AF030626	304800	G107E
Arginine vasopressin receptor 2	AF030626	304800	GLY185CYS
Arginine vasopressin receptor 2	AF030626	304800	GLY201ASP
Arginine vasopressin receptor 2	AF030626	304800	L43P
Arginine vasopressin receptor 2	AF030626	304800	P322H
Arginine vasopressin receptor 2	AF030626	304800	P322S
Arginine vasopressin receptor 2	AF030626	304800	R137H
Arginine vasopressin receptor 2	AF030626	304800	TRP71TER
Arginine vasopressin receptor 2	AF030626	304800	TYR205CYS

Arginine vasopressin receptor 2	AF030626	304800	TYR280CY5
Arginine vasopressin receptor 2	AF030626	304800	W193X
Gamma-Aminobutyric Acid Receptor, Alpha-3; GABRA3	S62908	305660	16-repeat allele
Gamma-Aminobutyric Acid Receptor, Alpha-3; GABRA3	S62908	305660	Dimucleotide repeat
gastrin-releasing polypeptide receptor/G protein-coupled/GRPR	D87058	305670	two single nucleotide substitutions in exon 2
Glutamatic Receptor, Ionotropic, Ampa 3; GRIA3	X82068	305915	none found
Glycine Receptor, Alpha-2 Subunit; GRIA2	X52008	305990	none found
Monoamine Oxidase A; MAOA	M69226	309850	23-bp VNTR
Monoamine Oxidase A; MAOA	M69226	309850	3rd base of codon 941 941 G>T
Monoamine Oxidase A; MAOA	M69226	309850	A1026T ProlineProline
Monoamine Oxidase A; MAOA	M69226	309850	A1559G LysineArginine
Monoamine Oxidase A; MAOA	M69226	309850	A385C ArginineArginin
Monoamine Oxidase A; MAOA	M69226	309850	C1410T Aspartic AcidAspartic

Monoamine Oxidase A; MAOA	M69226	309850	Acid C886T Glutamine296T termination codon
Monoamine Oxidase A; MAOA	M69226	309850	C886T GlutamineTermination codon
Monoamine Oxidase A; MAOA	M69226	309850	exon 14 --RFLP (EcoRV enzyme) length of (CA)n repeat
Monoamine Oxidase A; MAOA	M69226	309850	RFLP (EcoRV enzyme) RFLP (Pst I)
Monoamine Oxidase A; MAOA	M69226	309850	T891G ArginineArginin e
Monoamine Oxidase A; MAOA	M69226	309850	T891G
Monoamine Oxidase A; MAOA	M69177	309860	(GT)n repeat
Monoamine Oxidase B; MAOB	M69177	309860	36 bases upstream from intron 13-exon 14 boundary
Monoamine Oxidase B; MAOB	M69177	309860	A at position 644 of intron 13 G at position 644 of intron 13
Monoamine Oxidase B; MAOB	M69177	309860	RFLP (MaeII enzyme)
Monoamine Oxidase B; MAOB	M69177	309860	2831T > G in the 3' serotonin 5-HT receptors 5-HT1C, G

protein-coupled serotonin 5-HT receptors 5-HT1C, G protein-coupled	U49516	312861	CYS23SER
androgen receptor	M20132	313700	Hind III
androgen receptor	M20132	313700	(CAA)n
androgen receptor	M20132	313700	(CAG)n
androgen receptor	M20132	313700	(GGN)n
androgen receptor	M20132	313700	5-KB DEL, EX F, G
androgen receptor	M20132	313700	5-KB DEL, EX E
androgen receptor	M20132	313700	C>T within exon B silent
androgen receptor	M20132	313700	CAG340TAG Gln>Ter
androgen receptor	M20132	313700	Del T at 3286 frameshift
androgen receptor	M20132	313700	del1893 frameshift
androgen receptor	M20132	313700	G Codon 210 A
androgen receptor	M20132	313700	G Codon 211 A
androgen receptor	M20132	313700	G2314A ala>thr
androgen receptor	M20132	313700	G2677A glu629arg
androgen receptor	M20132	313700	Hhal
androgen receptor	M20132	313700	HpaII
androgen receptor	M20132	313700	Insert of 69 nucleotides
androgen receptor	M20132	313700	MaeII
androgen receptor	M20132	313700	PARTIAL DEL
androgen receptor	M20132	313700	Stu I
androgen receptor	M20132	313700	598 or 599 ter
androgen receptor	M20132	313700	ALA721THR
androgen receptor	M20132	313700	ALA771THR
androgen receptor	M20132	313700	ARG607GLN
androgen receptor	M20132	313700	ARG608LYS
androgen receptor	M20132	313700	Arg615His

androgen receptor	M20132	313700	arg726leu
androgen receptor	M20132	313700	Arg752Gln
androgen receptor	M20132	313700	ARG772CYS
androgen receptor	M20132	313700	ARG773CYS
androgen receptor	M20132	313700	ARG773HIS
androgen receptor	M20132	313700	ARG839CYS
androgen receptor	M20132	313700	ARG839HIS
androgen receptor	M20132	313700	arg840his
androgen receptor	M20132	313700	ARG846HIS
androgen receptor	M20132	313700	ARG855HIS
androgen receptor	M20132	313700	CYS579PHE
androgen receptor	M20132	313700	G214R
androgen receptor	M20132	313700	GLN60TER
androgen receptor	M20132	313700	Gln798Glu
androgen receptor	M20132	313700	GLN902ARG
androgen receptor	M20132	313700	GLU2LYS
androgen receptor	M20132	313700	gly743val
androgen receptor	M20132	313700	HIS874TYR
androgen receptor	M20132	313700	ILE869MET
androgen receptor	M20132	313700	LEU172TER
androgen receptor	M20132	313700	LEU676PRO
androgen receptor	M20132	313700	LEU707ARG
androgen receptor	M20132	313700	LYS588TER
androgen receptor	M20132	313700	LYS882TER
androgen receptor	M20132	313700	MET780ILE
androgen receptor	M20132	313700	MET786VAL
androgen receptor	M20132	313700	PHE582TYR
androgen receptor	M20132	313700	PRO546SER
androgen receptor	M20132	313700	Pro892ser
androgen receptor	M20132	313700	SER647ASN
androgen receptor	M20132	313700	THR877ALA

androgen receptor	M20132	313700	THR877SER
androgen receptor	M20132	313700	TRP717TER
androgen receptor	M20132	313700	TRP794TER
androgen receptor	M20132	313700	TYR761CYS
androgen receptor	M20132	313700	val 581 phe
androgen receptor	M20132	313700	VAL730MET
androgen receptor	M20132	313700	VAL865LEU
androgen receptor	M20132	313700	VAL865MET
androgen receptor	M20132	313700	VAL866MET
ACETYL SEROTONI	N	402500	none found
METHYLTRANSFER			
ASE, Y-			
CHROMOSOMAL			
voltage dependent	U07139	600003	none found
calcium channel beta 2			
subunit/ ACNB2			
vascular angiotensin II	NM_0048	600015	none found
receptor type	35		
1B/AGTR1B			
Opioid Receptor, Mu-	NM_0009	600018	(CA)n
1; Oprml	14		
Opioid Receptor, Mu-	NM_0009	600018	Asn40Asp
1; Oprml	14		
P2Y2 purinoreceptor/G	U07225	600041	none found
protein-coupled			
Solute Carrier Family	U03504	600111	none found
1, Member 3; Scl a3			
type V voltage	NM_0003	600163	1-BP DEL frameshift
dependent sodium	35		
channel alpha.			

subunit:SCN5A	type V voltage dependent sodium channel alpha	NM_0003 35	600163	2-BP INS
subunit:SCN5A	type V voltage dependent sodium channel alpha	NM_0003 35	600163	LYS1505/PRO1 506/GLN1507D EL ARG1232TRP
subunit:SCN5A	type V voltage dependent sodium channel alpha	NM_0003 35	600163	ARG1623GLN
subunit:SCN5A	type V voltage dependent sodium channel alpha	NM_0003 35	600163	ARG1644HIS]
subunit:SCN5A	type V voltage dependent sodium channel alpha	NM_0003 35	600163	GLU1784LYS
subunit:SCN5A	type V voltage dependent sodium channel alpha	NM_0003 35	600163	THR1620MET
subunit:SCN5A	Histamine receptor H1	AF026261	600167	none found
Gamma-Aminobutyric	S77553	600232	none found	

Acid Receptor, Beta-2;			
Gabrb2			
Gamma-Aminobutyric Acid Receptor, Gamma-3;	NM_000816	600233	none found
Gabry3			
type I voltage dependent sodium channel beta1 subunit/SCN1B	NM_001037	600235	CYS121TRP
Arginine Vasopressin Receptor 1B/AVPR1B	AF030512	600264	none found
Glutamate Receptor, Ionotropic, Kainate 4; Grik4	S67803	600282	none found
Glutamile Receptor, Ionotropic, Kainate 5; Grik5	S40369	600283	none found
Solute Carrier Family 1, Member 2; Slc1a2	U03505	600300	none found
Vesicular acetylcholine transporter	NM_003055	600336	none found
bradykinin receptor B1/B2DKR31 G protein-coupled	NM_000710	600337	9-base pair deletion
bradykinin receptor B1/B2DKR31 G protein-coupled	NM_000710	600337	A1098-->G
bradykinin receptor B1/B2DKR31 G protein-coupled	NM_000710	600337	C181-->T

bradykinin receptor B1/BDKRB1 G protein-coupled	NM_10	600337	G-699-->C
Glycine Receptor, Alpha-3 Subunit; Gira3	AF018157	600421	none found
Adenosine A3 Receptor; Adora3/G protein-coupled	L20463	600445	none found
Adenosine A2b Receptor; Adora2b/G protein-coupled	X68487	600446	none found
neurotrophic tyrosine kinase receptor type 2/NTRK2		600456	none found
inwardly rectifying potassium channel, subfamily J, member 4/KCNJ4	NM_81	60049	none found
reelin/Ri.I.N	NM_45	600514	none found
Human immunophilin (FKBP52) mRNA, complete cds	M88279	600611	none found
opioid binding cell adhesion molecule (OCAM)	*****	600632	none found
Solute carrier family 1, member 6 (GABA/ $\gamma$ LU) SLC1A6	NM_71	600637	none found
Human aryl L19956		600641	none found

sulfotransferase	mRNA, complete cds	600665	A157V
MELATONIN			
RECEPTOR 1A			
MELATONIN			
RECEPTOR 1A	NM_0008	600681	C-->T silent
inwardly rectifying			
potassium channel,			
subfamily 1, member			
2/KCNJ3/HHRK1	91		
type VIII voltage	*****	600702	none found
dependent sodium			
channel alpha			
subunit SCN8A			
G protein-coupled			
receptor G(i)PR7	U22491	600730	none found
G protein-coupled			
receptor G(i)PR8	U22492	600731	none found
presenilin 2	NM_0004	600759	exon 3
	47		
presenilin 2	NM_0004	600759	ASN141ILE
	47		
presenilin 2	NM_0004	600759	MET239VAL
	47		
MELATONIN			
RECEPTOR 1B			
Arginine Vasopressin	AF030625	600821	none found
Receptor 1A/AVPR1A			
RAR related orphan	NM_0029	600825	none found
receptor A/RORA	43		
Purinergic Receptor	Y07683	600843	none found

P2x, Ligand-Gated Ion Channel, 3; P2rx3	NM_0025	600845	none found
Purinergic Receptor P2x, Ligand-Gated Ion Channel, 1; P2rx1	NM_58		
Purinergic Receptor P2x, Ligand-Gated Ion Channel, 4; P2rx4	AF000234	600846	none found
G protein coupled potassium channel inward rectifier/GIRK3	*****	600932	none found
folate hydrolase 1/FOH1	NM_0001	600934	none found
growth hormone receptor GHR	NM_63	600946	none found
serotonin N-Acetyltransferase; SNAT	U40347	600950	none found
leptin receptor/LEPR	NM_0023	601007	(CTTTA)n
leptin receptor/LEPR	NM_03		3'-UTR
leptin receptor/LEPR	NM_0023	601007	insertion/deletion
leptin receptor/LEPR	NM_03		CA microsatellite
leptin receptor/LEPR	NM_0023	601007	repeat in intron 3,
leptin receptor/LEPR	NM_03		IVS16, G-A, +1
leptin receptor/LEPR	NM_0023	601007	Ala976Asp
leptin receptor/LEPR	NM_03	601007	Gln223Arg
leptin receptor/LEPR	NM_0023	601007	GLN23ARG

leptin receptor/LEPR	03 NM_0023	601007	K109R
leptin receptor/LEPR	03 NM_0023	601007	K656N
leptin receptor/LEPR	03 NM_0023	601007	Lys109Arg
leptin receptor/LEPR	03 NM_0023	601007	Lys656Asn
leptin receptor/LEPR	03 NM_0023	601007	Pro109Pro
leptin receptor/LEPR	03 NM_0023	601007	Ser343Ser
leptin receptor/LEPR	03 NM_0023	601007	Ser492Thr
Solute carrier family 6, Member 9; SLC6A9		601019	none found
serotonin 5-HT receptors 5-HT6, G protein-coupled	L41147	601109	C267T
Glutamate Receptor, Metabotropic 3/G protein-coupled/Grm3	X77748	601115	none found
Glutamate Receptor, Metabotropic 8/G protein-coupled/Grm8	U95025	601116	none found
Thimet oligopeptidase	Z50115	601117	none found
serotonin 5-HT	X77307	601122	none found
receptors 5-HT2B, G protein-coupled			

P2Y1 purinoceptor/G protein-coupled type II voltage dependent sodium channel alpha 2 subunit/SCN2A2	U42029	601167	none found
H-sapiens mRNA for arylsulotransferase (ST1A2)	M55662	601219	none found
serotonin 5-HT receptor, 5-HT5a, G protein-coupled type II voltage dependent sodium channel beta subunit/SCN2B	X78282	601292	none found
H-sapiens mRNA for propranolol receptor/G protein-coupled type II voltage dependent sodium channel beta 1 receptor/G protein-coupled G protein coupled potassium channel, subfamily J, member 3/KCNJ3/GIRK1	X81411	601305	none found
H-sapiens mRNA for propranolol receptor/G protein-coupled type II voltage dependent sodium channel beta 2 receptor/G protein-coupled G protein coupled potassium channel, subfamily J, member 2/KCNJ2/GIRK2	NM_004588	601327	none found
H-sapiens mRNA for propranolol receptor/G protein-coupled type II voltage dependent sodium channel beta 3 receptor/G protein-coupled G protein coupled potassium channel, subfamily J, member 3/KCNJ3/GIRK1	X97370	601459	none found
H-sapiens mRNA for propranolol receptor/G protein-coupled type II voltage dependent sodium channel beta 4 receptor/G protein-coupled G protein coupled potassium channel, subfamily J, member 4/KCNJ4/GIRK4	NM_000752	601531	none found
estrogen receptor 2 (ESR2)			
voltage dependent potassium channel, subfamily K, member 2/KCNK2/GIRK2	NM_002245	601745	none found

1/k <sub>d</sub> (NM:1)	vitamin D	NM_0003	601769	A(T/C)G putative translation start site
vitamin D	receptor, VDR	NM_76		
vitamin D	receptor, VDR	NM_0003	601769	Apal
vitamin D	receptor, VDR	NM_76		
vitamin D	receptor, VDR	NM_0003	601769	BsmI
vitamin D	receptor, VDR	NM_76		
vitamin D	receptor, VDR	NM_0003	601769	FokI
vitamin D	receptor, VDR	NM_76		
vitamin D	receptor, VDR	NM_0003	601769	PvuII
vitamin D	receptor, VDR	NM_76		
vitamin D	receptor, VDR	NM_0003	601769	TaqI
vitamin D	receptor, VDR	NM_76		
vitamin D	receptor, VDR	NM_0003	601769	XbaI
vitamin D	receptor, VDR	NM_76		
vitamin D	receptor, VDR	NM_0003	601769	ARG-GLY
vitamin D	receptor, VDR	NM_76		
vitamin D	receptor, VDR	NM_0003	601769	ARG391CYS
vitamin D	receptor, VDR	NM_76		
vitamin D	receptor, VDR	NM_0003	601769	HIS305GLN
vitamin D	receptor, VDR	NM_76		
vitamin D	receptor, VDR	NM_0003	601769	ILE314SER
vitamin D	receptor, VDR	NM_76		
vitamin D	receptor, VDR	NM_0003	601769	ARG271LEU
vitamin D	receptor, VDR	NM_76		
vitamin D	receptor, VDR	NM_0003	601769	ARG30TER
vitamin D	receptor, VDR	NM_76		
vitamin D	receptor, VDR	NM_0003	601769	ARG47GLN
vitamin D	receptor, VDR	NM_76		
vitamin D	receptor, VDR	NM_0003	601769	ARG77GLN

rec. ptor. VDR vitamin D	NM_0003 76	601769	codon 352
rec. ptor. VDR vitamin D	NM_0003 76	601769	GLN149TER
rec. ptor. VDR vitamin D	NM_0003 76	601769	GLY30ASP
rec. ptor. VDR vitamin D	NM_0003 76	601769	GLY46ASP
rec. ptor. VDR vitamin D	NM_0003 76	601769	TYR292TER
Neuropeptide Y rec. ptor. Y6	D86519	601770	none found
voltage independent net. on: sodium channel 1/ACCN1	NM_0010 94	601784	none found
voltage dependent calcium channel beta 4 sub-unit ACNB4	*****	601949	none found
voltage dependent calcium channel beta 3 sub-unit ACNB3	NM_0007 25	601958	none found
vasoactive intestinal peptide receptor 2/VIPR	L40764	601970	none found
R <sup>A</sup> & R <sup>B</sup> related orphan receptor B/RORB	*****	601972	none found
Opioid Receptor, Sigma I	U75283	601978	Gln2Pro
Opioid Receptor, Sigma I	U75283	601978	GC-241-240TT in the 5'

Neuropeptide Y receptor Y5	U94320	602001	none found
Colicinopeptin releasing horseradish receptor 2	NM_001883	602034	none found
neurotrophin 1/VEGF 165 receptor NRP1	NM_003873	602069	none found
neurotrophin 2/VEGF 165 receptor NRP2	NM_003872	602070	none found
Solite carrier family 29 (nucleosides), member 2/S <sub>c</sub> C29A2/ENT2	X86681	602110	none found
serotonin 5-HT receptor 5-HT4, G protein-coupled	Y08756	602164	none found
Solite carrier family 29 (nucleosides), member 1/S <sub>c</sub> C29A1/ENT1 inward rectifying potassium channel, subfamily J, member 10/ENTJ10	NM_004955	602193	none found
voltage dependent potassium channel, KCN <sub>f</sub> -like subfamily, member 3/KCNQ3	AF033347	602232	GLY263VAL
voltage dependent potassium channel, KCN <sub>f</sub> -like subfamily, member 2/KCNQ2	NM_000218	602235	1-BP DEL, 1846T frameshift
voltage dependent potassium channel,	NM_000218	602235	5-BP INS frameshift

KC F-like subfamily, member 2/KCNQ2	NM_000218	602235	ALA306THR
voltage-dependent potassium channel, KC F-like subfamily, member 2/KCNQ2	NM_000218	602235	TYR284CYS
voltage-dependent potassium channel, KC F-like subfamily, member 2/KCNQ2	NM_000218	602235	none found
Amine oxidase (co-ope <sup>r</sup> containing) 2/2 <sup>nd</sup> C <sub>ys</sub>	D88213	602268	none found
Glu <sub>am</sub> amate Receptor, Ionotropic, Delta 2; Gria12	AF009014	602368	none found
P2 <sub>x</sub> 6 purinergic receptor G protein- coupled	NM_004154	602451	none found
opioid receptor-like 1/C <sub>ys</sub> R1	X77130	602548	none found
Purinergic Receptor P2 <sub>x</sub> Ligand-Gated Ion Channel 7; P2rx7	Y09561	602566	none found
Human FK506-binding protein FKBP51	U71321	602623	none found
P <sub>2</sub> Y11 purinoreceptor/G protein-coupled	*****	602697	none found
Glutamate Receptor, Ionotropic, N-Methyl-	U77783	602717	none found

D- <sub>7</sub> sp <sup>2</sup> d; Grin2d				
Gamma-Aminobutyric Acid Receptor, Pi; Gai, ip	U95367	602729	none found	
cyclic nucleotide gated hy: polarization	AF064876	602780	none found	
activated potassium ch: in: 1/HCN1				
cyclic nucleotide gated hy: polarization	AF064877	602781	none found	
activated potassium ch: and 2/HCN2				
Purinergic Receptor P2X, Ligand-Gated Ion Channel, 5; P2rx5	NM_0025	602836	none found	
voltage independent neuronal sodium ch: in: 2/ACCN2	NM_0010	602866	none found	
voltage dependent potassium channel, subfamily S, member 1/k; NNS1	95	602905	none found	
voltage dependent potassium channel, subfamily S, member 2/k; CNs2	*****	602906	none found	
neuronal voltage dependent calcium ch: in: gamma subunit CACNG2	*****	602911	none found	
RA related orphan	NM_0050	602943	none found	

rec pte: CRORC	60			
vit. min B12	NM_0010	602997	IVS6, C-G	
rec pto: cubilin/CUBN	NM_81			
vit. min B12	NM_0010	602997		PRO1297LEU
rec pto: cubilin/CUBN	NM_81			
hom: sapiens breast	AF010126	602998	none found	
ca: ce: specific protein				
1: ('SG1) mRNA,				
complete cds				
So: te: carrier family 6	U27699	603080	none found	
(bc: min: IAABA),				
me: ab: i2				
pot ssian channel,	AJ007557	603208	none found	
sub family J, member				
13, 'C <sub>8</sub> 113				
voltage dependent	*****	603219	none found	
pot ssian channel,				
sub family K, member				
2/1, 'N <sub>1</sub> 2				
voltage dependent	NM_0022	603220	none found	
pot ssian channel,	46			
sub family K, member				
3/1, 'N <sub>1</sub> 3				
voltage dependent	NM_0022	603305	none found	
pot ssian channel,	38			
sub family H, member				
1/1, 'N <sub>1</sub> 2				
thy. did: stimulating	NM_0003	603372	18-BP DEL, 4-BP frameshift	
hol: no: receptor	69		INS	
thy. did: stimulating	NM_0003	603372	1953-1957 deletion Asp at 619	
hol: no: receptor	69		deleted	

thyroid stimulating hormone receptor	NM_00033	6033372	2 bases deleted of codon 655 C253A
thyroid stimulating hormone receptor	NM_00033	6033372	
thyroid stimulating hormone receptor	NM_00033	6033372	duplication of nucleotides -346 to - 330
thyroid stimulating hormone receptor	NM_00033	6033372	G to C +3 intron 6
thyroid stimulating hormone receptor	NM_00033	6033372	G-A -4 intron
thyroid stimulating hormone receptor	NM_00033	6033372	TaqI
thyroid stimulating hormone receptor	NM_00033	6033372	CYS41SER
thyroid stimulating hormone receptor	NM_00033	6033372	LEU629PHE
thyroid stimulating hormone receptor	NM_00033	6033372	SER505ASN
thyroid stimulating hormone receptor	NM_00033	6033372	ALA553THR
thyroid stimulating hormone receptor	NM_00033	6033372	ALA623ILE
thyroid stimulating hormone receptor	NM_00033	6033372	alanine 623 to valine
thyroid stimulating hormone receptor	NM_00033	6033372	ARG109GLN
thyroid stimulating hormone receptor	NM_00033	6033372	Asn715Asp
thyroid stimulating hormone receptor	NM_00033	6033372	Asp219Glu

thyroid stimulating hormone receptor	NM_0003 69	603372	ASP36HIS
thyroid stimulating hormone receptor	NM_0003 69	603372	ASP410ASN
thyroid stimulating hormone receptor	NM_0003 69	603372	ASP619GLY
thyroid stimulating hormone receptor	NM_0003 69	603372	ASP633HIS
thyroid stimulating hormone receptor	NM_0003 69	603372	asp727glu
thyroid stimulating hormone receptor	NM_0003 69	603372	Asp727Glu
thyroid stimulating hormone receptor	NM_0003 69	603372	CAG
thyroid stimulating hormone receptor	NM_0003 69	603372	[Glu]227CAT
thyroid stimulating hormone receptor	NM_0003 69	603372	[His]
thyroid stimulating hormone receptor	NM_0003 69	603372	CYS390TRP
thyroid stimulating hormone receptor	NM_0003 69	603372	CYS672TYR
thyroid stimulating hormone receptor	NM_0003 69	603372	GCG
thyroid stimulating hormone receptor	NM_0003 69	603372	[Ala]460GCA
thyroid stimulating hormone receptor	NM_0003 69	603372	[Ala]
thyroid stimulating hormone receptor	NM_0003 69	603372	GGT[Arg]201C
thyroid stimulating hormone receptor	NM_0003 69	603372	AT [His]
thyroid stimulating hormone receptor	NM_0003 69	603372	GLN324TER
thyroid stimulating hormone receptor	NM_0003 69	603372	ILE167ASN
thyroid stimulating hormone receptor	NM_0003 69	603372	Ieu677val
thyroid stimulating hormone receptor	NM_0003 69	603372	LYS183ARG

hormone receptor	69	NM_0003	603372	Lys723 Met
thyroid stimulating hormone receptor	69	NM_0003	603372	MET453THR
thyroid stimulating hormone receptor	69	NM_0003	603372	P52T
thyroid stimulating hormone receptor	69	NM_0003	603372	Phe197Ile
thyroid stimulating hormone receptor	69	NM_0003	603372	PHE525LEU
thyroid stimulating hormone receptor	69	NM_0003	603372	PHE631LEU
thyroid stimulating hormone receptor	69	NM_0003	603372	PRO162ALA
thyroid stimulating hormone receptor	69	NM_0003	603372	SER281ASN
thyroid stimulating hormone receptor	69	NM_0003	603372	SER281ILE
thyroid stimulating hormone receptor	69	NM_0003	603372	TRP546TER
thyroid stimulating hormone receptor	69	NM_0003	603372	VAL509ALA
thyroid stimulating hormone receptor	69	NM_0029	603415	none found
thyroid stimulating hormone receptor	77			
type IX voltage dependent sodium channel alpha subunit SCN9A				
homolog of Drosophila dishevelled/DAB1		AF071062	603448	none found
Gamma-Aminobutyric Acid (GABA) A Receptor 1; Ac 1 B Receptor 1;		Y11044	603540	none found

Gu-hr[ glutagon-like peptide 2 recptor/GLP2R	***** AF054985	603659 603735	none found none found
Amine oxidase (co-per-containing) 3/ΔOC <sub>3</sub>			
voltage dependent potassium channel, sulf family F, member 1/β CNF-1	NM_0022 36	603787	none found
voltage dependent potassium channel, sulf family S, member 3/β CNF-3	AF043472	603888	none found
inwardly rectifying potassium channel, sulf family J, member 14/β CNJ-14	***** 603953	603953	none found
sodium channel alpha- sub unit/SCN4A	U24693	603967	(GA) <sub>n</sub>
sodium channel alpha- sub unit/SCN4A	U24693	603967	(GT) <sub>n</sub>
sodium channel alpha- sub unit/SCN4A	U24693	603967	GLY1306ALA
sodium channel alpha- sub unit/SCN4A	U24693	603967	ALA1156THR
sodium channel alpha- sub unit/SCN4A	U24693	603967	ARG1448CYS
sodium channel alpha- sub unit/SCN4A	U24693	603967	ARG1448HIS
sodium channel alpha- sub unit/SCN4A	U24693	603967	GLY1306VAL

subunit/SCN4A	U24693	603967	ILE1160VAL
sodium channel alpha-subunit/SCN4A	U24693	603967	LEU1433ARG
sodium channel alpha-subunit/SCN4A	U24693	603967	MET1592VAL
sodium channel alpha-subunit/SCN4A	U24693	603967	SER804PHE
sodium channel alpha-subunit/SCN4A	U24693	603967	THR1313MET
sodium channel alpha-subunit/SCN4A	U24693	603967	THR704MET
sodium channel alpha-subunit/SCN4A	U24693	603967	VAL1293ILE
sodium channel alpha-subunit/SCN4A	U24693	603967	VAL1589MET
sodium channel alpha-subunit/SCN4A	U24693	603967	VAL445MET
Glutamate Receptor, Metabotropic 6/G protein-coupled/Grm6	U82083	604096	none found
Glutamate Receptor, Metabotropic 2/G protein-coupled/Grm2	L35318	604099	none found
Glutamate Receptor, Metabotropic 4/G protein-coupled/Grm4	X80818	604100	none found
Glutamate Receptor, Metabotropic 7/G protein-coupled/Grm7	X94552	604101	none found

Glutamate Receptor, Metabotropic 5/G protein-coupled/Grm5	D28538	604102	none found
dihydrofolate reductase	J00140	126060	2 RFLP's
dihydrofolate reductase	J00140	126060	intronic polymorphism
FKBP, tacrolimus binding protein,	M34539	186945	none found
FK506-binding protein 1 (12kD)			
Cyclooxygenase 1	M59979	176805	none found
COX1			
Cyclooxygenase 2	M90100	600262	none found
COX2			
beta-synuclein [human, brain, mRNA, 730 nt]	S69965	602569	none found
histamine N- methyltransferase			
histamine N- methyltransferase			
		A939G	
		Thr105Ile	
3'(2'), 5'-bisphosphate	604053	NM_00608	none found

Table 20. Identified  
Variances in Genes or  
Related Pathways  
involved in the  
Pharmacokinetics and  
Pharmacodynamics of  
Candidate Therapeutic  
Interventions

nucleotidase 1/BPNT	100740	M55040	5	1431 C/T 446 silent
Acetylcholinesterase/A CHE				
Acetylcholinesterase/A CHE	100740	M55040		408 G/C arg561pro
Acetylcholinesterase/A CHE	100740	M55040		HIS322ASN
acyl-Coenzyme A dehydrogenase, C-4 to C-12 straight chain/ACADM (mitochondrial)			none found	
ALCOHOL DEHYDROGENASE	103700		none found	
1 aldehyde dehydrogenase	100650	K03001		GLU487LYS
2/ALDH2 (liver mitochondria) aldehyde dehydrogenase				
2/ALDH2 (liver mitochondria) aldehyde dehydrogenase	100650	K03001		A-361G
2/ALDH2 (liver mitochondria) ALDEHYDE DEHYDROGENASE	100650	K03001		-357 G/A
5 ALDEHYDE	100670			C183T silent
ALDEHYDE				C257T Val<-->Ala

DEHYDROGENASE	5				
ALDEHYDE	100670	T320G Arg<-->Leu			
DEHYDROGENASE	5				
ALDO-KETO REDUCTASE	600449		none found		
FAMILY 1, MEMBER 1; AKR1C1					
ALDO-KETO REDUCTASE	103830		none found		
FAMILY 1, MEMBER A1; AKR1A1					
ALDO-KETO REDUCTASE	603966		none found		
FAMILY 1, MEMBER					
C3		*****	none found		
Aldo-keto reductase family 1, member	600451				
C4/chlorodecone reductase/AKR1C4					
Aldo-keto reductase family 7, member	603418	NM_00368 9	none found		
A2/afлатoxin aldehyde reductase/AKR7A2					
anthracycline resistance-related	603234	NM_00117 1	none found		
protein/ARA antigen peptide	170260	NM_00059 3	none found		
transporter 1/MHC 1/TAP1					
				IILE333VAL	

antigen peptide transporter 1/MHC 1/TAP1	170260	NM_00059	ASP637GLY
antigen peptide transporter 1/MHC 1/TAP1	170260	NM_00059	ARG659GLN
antigen peptide transporter 1/MHC 1/TAP1	170260	NM_00059	val- leucine
antigen peptide transporter 1/MHC 1/TAP1	170260	NM_00059	silent glycine
antigen peptide transporter 1/MHC 1/TAP1	170260	NM_00059	silent glutamic acid
antigen peptide transporter 1/MHC 1/TAP1	170260	NM_00059	silent alanine
antigen peptide transporter 1/MHC 1/TAP1	170260	NM_00059	GTC-->ATC Val518Ile
antigen peptide transporter 1/MHC 1/TAP1	170260	NM_00059	G-->T promoter
antigen peptide transporter 1/MHC 1/TAP1	170260	NM_00059	10-bp insert intron 9
antigen peptide transporter 1/MHC 1/TAP1	170260	NM_00059	G-->T 80-bp 3' termination codon
antigen peptide transporter 1/MHC 1/TAP1	170260	NM_00059	dinucleotide repeat

transporter 1/MHC 1/TAP1	3	intron 3
antigen peptide	170261	NM_00054
transporter 2/MHC 2/TAP2	4	ILE379VAL
antigen peptide	170261	NM_00054
transporter 2/MHC 2/TAP2	4	ALA665THR
antigen peptide	170261	NM_00054
transporter 2/MHC 2/TAP2	4	GLN687TER
antigen peptide	170261	NM_00054
transporter 2/MHC 2/TAP2	4	Thr374Ala
antigen peptide	170261	NM_00054
transporter 2/MHC 2/TAP2	4	ACG to ACA 458Thr
antigen peptide	170261	NM_00054
transporter 2/MHC 2/TAP2	4	GGG to GGA 466Gly
antigen peptide	170261	NM_00054
transporter 2/MHC 2/TAP2	4	GTT to ATT 467Val-Ile
antigen peptide	170261	NM_00054
transporter 2/MHC 2/TAP2	4	ATG-->GTG Met577Val
antigen peptide	170261	NM_00054
transporter 2/MHC 2/TAP2	4	565 (Ala-Thr)
antigen peptide	170261	NM_00054
transporter 2/MHC	4	silent codon 386

2/TAP2	107930	M76180	SspI
Aromatic L-Amino Acid			
Decarboxylase/AADC/			
dopa decarboxylase			
Aryl hydrocarbon receptor nuclear translocator-like/ARNTL	602550	NM_001178	none found
Aryl hydrocarbon receptor nuclear translocator/ARNT	126110	NM_001668	MspI
Aryl hydrocarbon receptor/AHR	600253	NM_001621	none found
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_000487	A-to-G transition changed the first polyadenylation
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_000487	ARG350SER
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_000487	IVS2DS, G-A, +1
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_000487	PRO426LEU
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_000487	GLY99ASP
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_000487	SER96PH
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_000487	11-BP DEL, EX8
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_000487	LE-TO-SER, EX3

Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	IVS7DS, G-A, +1
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	ARG84GLN
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	GLY309SER
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	-BP DEL FS105TER
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	GLY86ASP
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	SER96LEU
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	GLY122SER
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	PRO136LEU
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	1-BP DEL, 297C
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	GLY154ASP
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	PRO155ARG
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	PRO167ARG
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	ASP169ASN
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	ALA212VAL
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	ALA224VAL
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	PRO231THR

sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	ARG244CYS
Arylsulfatase A/steroid	250100	NM_00048 <sup>7</sup>	
sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	GLY245ARG
Arylsulfatase A/steroid	250100	NM_00048 <sup>7</sup>	
Arylsulfatase A/steroid	250100	NM_00048 <sup>7</sup>	THR274MET
sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	
Arylsulfatase A/steroid	250100	NM_00048 <sup>7</sup>	IVS4DS, G-A, +1
sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	ARG288CYS
Arylsulfatase A/steroid	250100	NM_00048 <sup>7</sup>	
sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	SER295TYR
Arylsulfatase A/steroid	250100	NM_00048 <sup>7</sup>	
sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	GLY325CYS
Arylsulfatase A/steroid	250100	NM_00048 <sup>7</sup>	
Arylsulfatase A/steroid	250100	NM_00048 <sup>7</sup>	ASP335VAL
sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	
Arylsulfatase A/steroid	250100	NM_00048 <sup>7</sup>	ARG370TRP
sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	
Arylsulfatase A/steroid	250100	NM_00048 <sup>7</sup>	ARG370GLN
sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	
Arylsulfatase A/steroid	250100	NM_00048 <sup>7</sup>	PRO377LEU
sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	
Arylsulfatase A/steroid	250100	NM_00048 <sup>7</sup>	GLU382LYS
sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	
Arylsulfatase A/steroid	250100	NM_00048 <sup>7</sup>	ARG390TRP
sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	
Arylsulfatase A/steroid	250100	NM_00048 <sup>7</sup>	PHE398DEL
sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	
Arylsulfatase A/steroid	250100	NM_00048 <sup>7</sup>	THR409ILE
sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	

Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	GLN486TER
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	THR799GLY
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	P148L
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	P191T
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	R496H
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	N350S
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	9-bp deletion (2320del9) NlaIII
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	NlaIII2
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	BsrI
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	BamHI
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	L428P
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	II79S
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	R84Q
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	S96F
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	S95N

sulfatase/ARSA	250100	NM_00048	7	
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048	7	G119R
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048	7	D152Y
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048	7	R244H
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048	7	S250Y
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048	7	A314T
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048	7	R384C
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048	7	R496H
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048	7	K367N
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048	7	leu76pro
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048	7	A2725G
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048	7	A1788G
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048	7	D255H
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048	7	287 C-->T
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048	7	1524+95 A-->G
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048	7	Q190-->H

Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	A1788G
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	A2723G
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	C2330T
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	11-bp deletion in exon 8
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	A1049G
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	TaqI
Arylsulfatase A/steroid sulfatase/ARSA	250100	NM_00048 <sup>7</sup>	BamHI
Arylsulfatase B/steroid sulfatase/ARSB	253200	NM_00004 <sup>6</sup>	GLY137VAL
Arylsulfatase B/steroid sulfatase/ARSB	253200	NM_00004 <sup>6</sup>	CYS117ARG
Arylsulfatase B/steroid sulfatase/ARSB	253200	NM_00004 <sup>6</sup>	LEU236PRO
Arylsulfatase B/steroid sulfatase/ARSB	253200	NM_00004 <sup>6</sup>	CYS405TYR
Arylsulfatase B/steroid sulfatase/ARSB	253200	NM_00004 <sup>6</sup>	1-BP DEL frameshift
Arylsulfatase B/steroid sulfatase/ARSB	253200	NM_00004 <sup>6</sup>	743C DEL frameshift
Arylsulfatase B/steroid sulfatase/ARSB	253200	NM_00004 <sup>6</sup>	11-BP DEL
Arylsulfatase B/steroid sulfatase/ARSB	253200	NM_00004 <sup>6</sup>	G302R
Arylsulfatase B/steroid sulfatase/ARSB	253200	NM_00004 <sup>6</sup>	Q456X

sulfatase/ARSB	253200	NM_00004	6	A1191G
Arylsulfatase B/steroid sulfatase/ARSB	253200	NM_00004	6	*534Q
Arylsulfatase B/steroid sulfatase/ARSB	253200	NM_00004	6	R1160*
Arylsulfatase B/steroid sulfatase/ARSB	253200	NM_00004	6	R1160Q
Arylsulfatase B/steroid sulfatase/ARSB	253200	NM_00004	6	7-bp del frameshift
Arylsulfatase B/steroid sulfatase/ARSB	253200	NM_00004	6	deletion (delta G237-C243)
Arylsulfatase B/steroid sulfatase/ARSB	253200	NM_00004	6	R1152W
Arylsulfatase B/steroid sulfatase/ARSB	253200	NM_00004	6	arg144gly
Arylsulfatase B/steroid sulfatase/ARSB	253200	NM_00004	6	arg192cys
Arylsulfatase B/steroid sulfatase/ARSB	253200	NM_00004	6	pro321leu
Arylsulfatase B/steroid sulfatase/ARSB	253200	NM_00004	6	insertion between T1284 and G1285
Arylsulfatase B/steroid sulfatase/ARSB	253200	NM_00004	6	deletion C1577
Arylsulfatase B/steroid sulfatase/ARSB	253200	NM_00004	6	T1600C
Arylsulfatase C, isozyme s/steroid sulfatase/ARCS1	308100	NM_00035	1	TRP372ARG
Arylsulfatase C, isozyme s/steroid sulfatase/ARCS1	308100	NM_00035		CYS446TYR

isozyme s/steroid sulfatase/ARCS1	1			
Arylsulfatase C, isozyme s/steroid sulfatase/ARCS1	308100	NM_00035	SER341LEU	
Arylsulfatase C, isozyme s/steroid sulfatase/ARCS1	308100	NM_00035	TRP372PRO	
Arylsulfatase C, isozyme s/steroid sulfatase/ARCS1	308100	NM_00035	HIS444ARG	
Arylsulfatase C, isozyme s/steroid sulfatase/ARCS1	308100	NM_00035	19-bp insertion 1477 frameshift intron/exon 18	
Arylsulfatase C, isozyme s/steroid sulfatase/ARCS1	308100	NM_00035	none found	
Arylsulfatase D/steroid sulfatase/ARSD	300002	*****		
Arylsulfatase E/steroid sulfatase/ARSE	300180	NM_00004	ARG12SER	
Arylsulfatase E/steroid sulfatase/ARSE	300180	NM_00004	GLY117ARG	
Arylsulfatase E/steroid sulfatase/ARSE	300180	NM_00004	ARG111PRO	
Arylsulfatase E/steroid sulfatase/ARSE	300180	NM_00004	GLY137VAL	
Arylsulfatase E/steroid sulfatase/ARSE	300180	NM_00004	GLY245ARG	
Arylsulfatase E/steroid sulfatase/ARSE	300180	NM_00004	CYS492TYR	
Arylsulfatase F/steroid sulfatase/ARSF	300003	NM_00404	none found	
bile salt export	603201	NM_00374	ARG575TER	

pump/BSEP	603201	NM_00374 <sup>2</sup>	GLU297GLY
bile salt export pump/BSEP		NM_00374 <sup>2</sup>	
bile salt export pump/BSEP	603201	NM_00374 <sup>2</sup>	1-BP DEL, 908G frameshift
bile salt export pump/BSEP	603201	NM_00374 <sup>2</sup>	1-BP INS, 3767C frameshift
bile salt export pump/BSEP	177500	*****	none found
butyrylcholinesterase 2/serum cholinesterase 2/BCHE2	177400	NM_00005 <sup>5</sup>	GCA to ACA ALA539THR
butyrylcholinesterase 1/serum cholinesterase 1/BCHE1	177400	NM_00005 <sup>5</sup>	GGT to GTT Gly 390 to Val
butyrylcholinesterase 1/serum cholinesterase 1/BCHE1	177400	NM_00005 <sup>5</sup>	E451X
butyrylcholinesterase 1/serum cholinesterase 1/BCHE1	177400	NM_00005 <sup>5</sup>	F446V
butyrylcholinesterase 1/serum cholinesterase 1/BCHE1	177400	NM_00005 <sup>5</sup>	THR250PRO
butyrylcholinesterase 1/serum cholinesterase 1/BCHE1	177400	NM_00005 <sup>5</sup>	A-to-G Y128C
butyrylcholinesterase 1/serum cholinesterase 1/BCHE1	177400	NM_00005 <sup>5</sup>	LEU330ILE

butyrylcholinesterase 1/serum cholinesterase 1/BCHE1	177400	NM_00005 5	G365R
butyrylcholinesterase 1/serum cholinesterase 1/BCHE1	177400	NM_00005 5	Q119X
butyrylcholinesterase 1/serum cholinesterase 1/BCHE1	177400	NM_00005 5	R515C
butyrylcholinesterase 1/serum cholinesterase 1/BCHE1	177400	NM_00005 5	GLU497VAL
butyrylcholinesterase 1/serum cholinesterase 1/BCHE1	177400	NM_00005 5	THR243MET
butyrylcholinesterase 1/serum cholinesterase 1/BCHE1	177400	NM_00005 5	GGT-to-GGAG Gly 117 Frameshift
butyrylcholinesterase 1/serum cholinesterase 1/BCHE1	177400	NM_00005 5	Gly115 by Asp
butyrylcholinesterase 1/serum cholinesterase 1/BCHE1	177400	NM_00005 5	342-bp Alu in exon two Alu insertion
butyrylcholinesterase 1/serum cholinesterase 1/BCHE1	177400	NM_00005 5	209 A/G Asp-70 to Gly
CARBOXYLESTERA 114835			none found

SE 1; CES1	116790	M58525	BglI
Catechol-O-Methyltransferase			
Catechol-O-Methyltransferase	116790	M58525	186C > T at exon 3
Catechol-O-Methyltransferase	116790	M58525	408C > G at exon 4
Catechol-O-Methyltransferase	116790	M58525	472G > A at exon 4
Catechol-O-Methyltransferase	116790	M58525	597G > A at exon 5
Catechol-O-Methyltransferase	116790	M58525	821-827insC at the 3'
Catechol-O-Methyltransferase	116790	M58525	Val158-->Met
Catechol-O-Methyltransferase	116790	M58525	NlaIII
Catechol-O-Methyltransferase	116790	M58525	MspI
Catechol-O-Methyltransferase	116790	M58525	val108-met
Catechol-O-Methyltransferase	116790	M58525	G/A1947
Catechol-O-Methyltransferase	116790	M58525	C256G silent
Catechol-O-Methyltransferase class I aldehyde dehydrogenase	100640	M26761	none found
cytochrome P450 aromatase (CYP19)	107910	X13589	(TTA)n in intron 5
cytochrome P450 aromatase (CYP19)	107910	X13589	1-BP DEL, 408C frameshift

cytochrome P450 aromatase (CYP19)	107910	X13589	G-->A at Val80 silent
cytochrome P450 aromatase (CYP19)	107910	X13589	G-1094 -A ARG365GLN
cytochrome P450 aromatase (CYP19)	107910	X13589	G-to-A Val370-to-Met
cytochrome P450 aromatase (CYP19)	107910	X13589	GT to AT exon and intron 3
cytochrome P450 aromatase (CYP19)	107910	X13589	splice donor 29 extra amino (GT>GC) of intron 6 acids
cytochrome P450 aromatase (CYP19)	107910	X13589	Arg264cys
cytochrome P450 aromatase (CYP19)	107910	X13589	ARG375CY S
cytochrome P450 aromatase (CYP19)	107910	X13589	ARG435CY S
cytochrome P450 aromatase (CYP19)	107910	X13589	CYS437TYR
cytochrome P450 aromatase (CYP19)	107910	X13589	cATT-GTT Ile462Val
cytochrome P450, subfamily I, polypeptide 1 (aryl hydrocarbon oxidase)/CYP1A1	108330	NM_00049 <sub>9</sub>	MspI
cytochrome P450, subfamily I, polypeptide 1 (aryl hydrocarbon oxidase)/CYP1A1	108330	NM_00049 <sub>9</sub>	T6235C

hydrocarbon oxidase)/CYP1A1	108330	NM_00049	A4889G
cytochrome P450, subfamily I, polypeptide 1 (aryl hydrocarbon oxidase)/CYP1A1	108330	NM_00049	T5639C
cytochrome P450, subfamily I, polypeptide 1 (aryl hydrocarbon oxidase)/CYP1A1	108330	NM_00049	C4887A
cytochrome P450, subfamily I, polypeptide 1 (aryl hydrocarbon oxidase)/CYP1A1	108330	NM_00049	C(-459)T
cytochrome P450, subfamily I, polypeptide 1 (aryl hydrocarbon oxidase)/CYP1A1	108330	NM_00049	G(-469)A
cytochrome P450, subfamily I, polypeptide 1 (aryl hydrocarbon oxidase)/CYP1A1	108330	NM_00049	C(4151)T

oxidase)/CYP1A1				
cytochrome P450,	108330	NM_00049		
subfamily I,		<sub>9</sub>		
polypeptide 1 (aryl				
hydrocarbon				
oxidase)/CYP1A1				
cytochrome P450,	124060	AH002667		
subfamily I,				
polypeptide 2				
(phenacetin				
metabolism)/CYP1A2				
cytochrome P450,	124060	AH002667	G->A -2964	
subfamily I,				
polypeptide 2				
(phenacetin				
metabolism)/CYP1A2				
cytochrome P450,	124060	AH002667		
subfamily I,				
polypeptide 2				
(phenacetin				
metabolism)/CYP1A2				
cytochrome P450,	601771	NM_00010	deletion 1410 to frameshift	
subfamily IB,		<sub>4</sub>	1422	
polypeptide 1 (dioxin				
inducible)/CYP1B1				
cytochrome P450,	601771	NM_00010	insertion between frameshift	
subfamily IB,			1209 and 1214	
polypeptide 1 (dioxin				
inducible)/CYP1B1				
cytochrome P450,	601771	NM_00010		
subfamily IB,		<sub>4</sub>		
			GLY61GLU	



subfamily II, polypeptide 1 (phenobarbital inducible)/CYP2A cytochrome P450, subfamily IIA, polypeptide 6 (coumarin-7- hydroxylase)/CYP2A6 cytochrome P450, subfamily IIA, polypeptide 6 (coumarin-7- hydroxylase)/CYP2A6 cytochrome P450, subfamily IIA, polypeptide 6 (coumarin-7- hydroxylase)/CYP2A6 cytochrome P450, subfamily IIB (phenobarbital inducible)/CYP2B cytochrome P450, subfamily IIC, polypeptide 18/CYP2C18 cytochrome P450, subfamily IIC, polypeptide 18/CYP2C18	122720 122720 122720 122720 123930 601131 601131	NM_00076 NM_00076 NM_00076 NM_00076 M29874 ***** *****	2 2 2 2 2 T204 --> A A-460 --> T	LEU160HIS CYP2A6 null Ddel none found T204 --> A A-460 --> T
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cytochrome P450, subfamily IIC, polypeptide 18/CYP2C18	601131	*****	Ddel
cytochrome P450, subfamily IIC, polypeptide 18/CYP2C18	601131	*****	Thr385Met
cytochrome P450, subfamily IIC, polypeptide 19 (mephenytoin 4- hydroxylase)/CYP2C1	124020	NM_00076 9	40-BP DEL
cytochrome P450, subfamily IIC, polypeptide 19 (mephenytoin 4- hydroxylase)/CYP2C1	124020	NM_00076 9	ARG433TRP
cytochrome P450, subfamily IIC, polypeptide 19 (mephenytoin 4- hydroxylase)/CYP2C1	601129	*****	
cytochrome P450, subfamily IIC, polypeptide 8/CYP2C8	601130	*****	ILE359LEU
cytochrome P450, subfamily IIC, polypeptide 9 (hydroxylation of tolbutamide)/CYP2C9	601130	*****	ARG144CYS
cytochrome P450, subfamily IIC, polypeptide 9			

(hydroxylation of tolbutamide)/CYP2C9 cytochrome P450, subfamily IIC, polypeptide 9	601130	*****	Ty $\pi$ 358/Cys
(hydroxylation of tolbutamide)/CYP2C9 cytochrome P450, subfamily IIC, polypeptide 9	601130	*****	Gly417/Asp
(hydroxylation of tolbutamide)/CYP2C9 cytochrome P450, subfamily IID, polypeptide 6 (debrisoquine hydroxylation)/CYP2D <sup>6</sup>	124030	NM_00010 <sub>6</sub>	G>C Glutamine intron splice site Histidine (splicing defect; does not splice intron at 3' site)
(hydroxylation of tolbutamide)/CYP2C9 cytochrome P450, subfamily IID, polypeptide 6 (debrisoquine hydroxylation)/CYP2D <sup>6</sup>	124030	NM_00010 <sub>6</sub>	G>A Glycine intron splice site Arginine (splicing defect; does not splice intron at 3' site)
(hydroxylation of tolbutamide)/CYP2C9 cytochrome P450, subfamily IID, polypeptide 6 (debrisoquine hydroxylation)/CYP2D <sup>6</sup>	124030	NM_00010 <sub>6</sub>	G>C Valine 136 Valine
(hydroxylation of tolbutamide)/CYP2C9 cytochrome P450, subfamily IID, polypeptide 6 (debrisoquine hydroxylation)/CYP2D <sup>6</sup>	124030	NM_00010 <sub>6</sub>	G>C Serine 486

subfamily IID, polypeptide 6 (debrisoquine hydroxylation)/CYP2D	<sup>6</sup> cytochrome P450, subfamily IID, polypeptide 6 (debrisoquine hydroxylation)/CYP2D	124030	NM_00010 <sup>6</sup>	insertion Arginine (A)>deletion (A) Glycine (frameshift - premature stop next codon)
subfamily IID, polypeptide 6 (debrisoquine hydroxylation)/CYP2D	<sup>6</sup> cytochrome P450, subfamily IID, polypeptide 6 (debrisoquine hydroxylation)/CYP2D	124030	NM_00010 <sup>6</sup>	A>C Histidine 324 Proline
subfamily IID, polypeptide 6 (debrisoquine hydroxylation)/CYP2D	<sup>6</sup> cytochrome P450, subfamily IID, polypeptide 6 (debrisoquine hydroxylation)/CYP2D	124030	NM_00010 <sup>6</sup>	G>T Glycine 169 Stop Codon
subfamily IID, polypeptide 6 (debrisoquine hydroxylation)/CYP2D	<sup>6</sup> cytochrome P450, subfamily IID, polypeptide 6 (debrisoquine hydroxylation)/CYP2D	124030	NM_00010 <sup>6</sup>	G>A Glycine 42 Arginine

polypeptide 6 (debrisoquine hydroxylation)/CYP2D	6			(frameshift - premature stop at next codon)
cytochrome P450, subfamily IID, polypeptide 6 (debrisoquine hydroxylation)/CYP2D	124030	NM_00010 6	C>T Arginine 296 Cysteine	
cytochrome P450, subfamily IID, polypeptide 6 (debrisoquine hydroxylation)/CYP2D	124030	NM_00010 6	C>T Proline 34 Serine	
cytochrome P450, subfamily IID, polypeptide 6 (debrisoquine hydroxylation)/CYP2D	6			Deletion Leucine (T)>Insertion (T) Leucine (frameshift - premature stop)
cytochrome P450, subfamily IID, polypeptide 6 (debrisoquine hydroxylation)/CYP2D	124030	NM_00010 6	G>A Serine 401 Serine	
cytochrome P450, subfamily IID, polypeptide 6 (debrisoquine hydroxylation)/CYP2D	6			G AA>deletion Lysine 281 Lysine deletion

(debrisoquine hydroxylation)/CYP2D <sup>6</sup>				
cytochrome P450, subfamily IID, polypeptide 6 (debrisoquine hydroxylation)/CYP2D <sup>6</sup>	124030	NM_00010 6	A>G Histidine 94 Arginine	
cytochrome P450, subfamily IID, polypeptide 6 (debrisoquine hydroxylation)/CYP2D <sup>6</sup>	124030	NM_00010 6	T>C Leucine 421 Proline	
cytochrome P450, subfamily IID, polypeptide 6 (debrisoquine hydroxylation)/CYP2D <sup>6</sup>	124030	NM_00010 6	AG A>deletion Lysine 281 Lysine deletion	
cytochrome P450, subfamily IID, polypeptide 6 (debrisoquine hydroxylation)/CYP2D <sup>6</sup>	124030	NM_00010 6	C>G Threonine 98 Threonine	
cytochrome P450, subfamily IID, polypeptide 6 (debrisoquine hydroxylation)/CYP2D <sup>6</sup>	124030	NM_00010 6	C>G Leucine 91 Valine	

hydroxylation)/CYP2D <sup>6</sup>				
cytochrome P450, subfamily IID, polypeptide 6 (debrisoquine hydroxylation)/CYP2D <sup>6</sup>	124030	NM_00010 6	G>A	Glycine 212 Glutamic acid
cytochrome P450, subfamily IID, polypeptide 6 (debrisoquine hydroxylation)/CYP2D <sup>6</sup>	124030	NM_00010 6	C>T	Phenylalanine 112 Phenylalanine
cytochrome P450, subfamily IIE (ethanol inducible)/CYP2E <sup>6</sup>	124040	J02843	(GGAT)n.(CCTA)n repeat element intron	
cytochrome P450, subfamily IIE (ethanol inducible)/CYP2E <sup>6</sup>	124040	J02843	Mspl	
cytochrome P450, subfamily IIE (ethanol inducible)/CYP2E <sup>6</sup>	124040	J02843	PstI	
cytochrome P450, subfamily IIE (ethanol inducible)/CYP2E <sup>6</sup>	124040	J02843	RsaI	
cytochrome P450, subfamily IIE (ethanol inducible)/CYP2E <sup>6</sup>	124040	J02843	XmnI	
cytochrome P450, subfamily IIE (ethanol inducible)/CYP2E <sup>6</sup>	124040	J02843	Taq I	

inducible)/CYP2E				
cytochrome P450,	124070	NM_00077		
subfamily IIIF		4		
(ethoxycoumarin				none found
monoxygenase),				
polypeptide 1/CYP2F1				
cytochrome P450,				
subfamily IIIA				
(niphedipine oxidase),				
polypeptide 3/CYP3A3	124010	NM_00077	a-g PROMOTER	
cytochrome P450,		6		
subfamily IIIA				
(niphedipine oxidase),				
polypeptide 3/CYP3A3				
cytochrome P450,				
subfamily IIIA				
(niphedipine oxidase),				
polypeptide 3/CYP3A3	124010	NM_00077		
cytochrome P450,		6		
subfamily IIIA				
(niphedipine oxidase),				
polypeptide 3/CYP3A3				
cytochrome P450,				
subfamily IIIA				
(niphedipine oxidase),				
polypeptide 3/CYP3A3	124010	NM_00077	Thr431Ile	
cytochrome P450,		6		
subfamily IIIA				
(niphedipine oxidase),				
polypeptide 3/CYP3A3				
cytochrome P450,				
subfamily IIIA				
(niphedipine oxidase),				
polypeptide 3/CYP3A3	124010	NM_00077		
cytochrome P450,		6		
subfamily IIIA				
(niphedipine oxidase),				
polypeptide 3/CYP3A3				
cytochrome P450,				
subfamily IIIA				
(niphedipine oxidase),				
polypeptide 3/CYP3A3	125263	NM_00316		
Dehydroepiandrosteron		7		
e (DHEA)-preferring				
sulfotransferase, family				
2A, member				
1/SULT2A1				

Dehydroepiandrosteron e (DHEA)-preferring sulfotransferase, family 2A, member 1/SULT2A1	125263	NM_00316 7	Glu 186 --> Val
Dihydrolipoamide dehydrogenase (E3 component of pyruvate dehydrogenase complex, 2-oxo- glutarate complex, branched chain keto acid dehydrogenase complex)	246900	J03490	LYS37GLU
Dihydrolipoamide dehydrogenase (E3 component of pyruvate dehydrogenase complex, 2-oxo- glutarate complex, branched chain keto acid dehydrogenase complex)	246900	J03490	PRO453LEU
Dihydrolipoamide dehydrogenase (E3 component of pyruvate dehydrogenase complex, 2-oxo- glutarate complex, branched chain keto acid dehydrogenase complex)	246900	J03490	1-BP INS frameshift
Dihydrolipoamide dehydrogenase (E3 component of pyruvate dehydrogenase complex, 2-oxo- glutarate complex, branched chain keto acid dehydrogenase	246900	J03490	

complex)			
Dihydrolipoamide	246900	J03490	GLY229CYS
dehydrogenase (E3			
component of pyruvate			
dehydrogenase			
complex, 2-oxo-			
glutarate complex,			
branched chain keto			
acid dehydrogenase			
complex)			
Dihydrolipoamide	246900	J03490	Y35X
dehydrogenase (E3			
component of pyruvate			
dehydrogenase			
complex, 2-oxo-			
glutarate complex,			
branched chain keto			
acid dehydrogenase			
complex)			
Dihydrolipoamide	246900	J03490	R460G
dehydrogenase (E3			
component of pyruvate			
dehydrogenase			
complex, 2-oxo-			
glutarate complex,			
branched chain keto			
acid dehydrogenase			
complex)			
Dihydrolipoamide S-	245349	AF001437	85-BP DEL
acetyltransferase (E2			
component of pyruvate			

dehydrogenase complex)	245349	AF001437	69-BP DEL
Dihydrolipoamide S-acetyltransferase (E2 component of pyruvate dehydrogenase complex)	245349	AF001437	4-BP DEL
Dihydrolipoamide S-acetyltransferase (E2 component of pyruvate dehydrogenase complex)	274270	U09178	deltac1897
dihydropyrimidine dehydrogenase DPD	274270	U09178	Arg21Gln
dihydropyrimidine dehydrogenase DPD	274270	U09178	Val335Leu
dihydropyrimidine dehydrogenase DPD	274270	U09178	Glu386Ter
dihydropyrimidine dehydrogenase DPD	274270	U09178	165-BP DEL
dihydropyrimidine dehydrogenase DPD	274270	U09178	Ser534Asn
dihydropyrimidine dehydrogenase DPD	274270	U09178	Ile543Val
dihydropyrimidine dehydrogenase DPD	274270	U09178	Val732Ile
dihydropyrimidine dehydrogenase DPD	274270	U09178	4-BP DEL 296 to 299 (TCAT)
dihydropyrimidine dehydrogenase DPD	274270	U09178	1-BP DEL, 1897C Frameshift

dehydrogenase DPD	274270	U09178	ARG886HIS
dihydropyrimidine dehydrogenase DPD	274270	U09178	CYS29ARG
dihydropyrimidine dehydrogenase DPD	274270	U09178	ASP974VAL
dihydropyrimidine dehydrogenase DPD	274270	U09178	5' TaqI RFLP
Dopamine Transporter/ DAT1	126455	L24178	9-repeat allele
Dopamine Transporter/ DAT1	126455	L24178	40-bp VNTR in the 3'-untranslated
Dopamine Transporter/ DAT1	126455	L24178	ARG286HIS
eosinophil peroxidase/EPX	131399		INS G, NT1137
eosinophil peroxidase/EPX	131399		TYR113HIS
epoxide hydrolase 1/EPHX1 (microsomal)	132810	NM_000120	Exon 3 T to C
epoxide hydrolase 1/EPHX1 (microsomal)	132810	NM_000120	His/Arg 139
epoxide hydrolase 1/EPHX1 (microsomal)	132810	NM_000120	*****
epoxide hydrolase 2/EPHX2 (cytosolic)	132811		none found
ESTERASE A-4	133220		none found
ESTERASE A-5;	133230		none found
ESAs			

ESTERASE B	133260	none found
ESTERASE B3; ESB3	133290	none found
ESTERASE C	133270	none found
Estrogen-preferring sulfotransferase/STE	600043	none found
familial intrahepatic cholestasis 1/FIC1	602397	NM_00542
familial intrahepatic cholestasis 1/FIC1	602397	NM_00560
familial intrahepatic cholestasis 1/FIC1	602397	NM_00560
familial intrahepatic cholestasis 1/FIC1	602397	NM_00560
familial intrahepatic cholestasis 1/FIC1	602397	NM_00560
familial intrahepatic cholestasis 1/FIC1	602397	NM_00560
familial intrahepatic cholestasis 1/FIC1	602397	NM_00560
familial intrahepatic cholestasis 1/FIC1	602397	NM_00560
familial intrahepatic cholestasis 1/FIC1	602397	NM_00560
familial intrahepatic cholestasis 1/FIC1	602397	NM_00560
familial intrahepatic cholestasis 1/FIC1	602397	NM_00560
familial polyglutamate synthetase FPGS	136510	M98045
gamma-glutamyl hydrolase GGH	601509	U55206
GAMMA-GLUTAMYL TRANSFERASE 2	137181	none found
Glucose-6-phosphate dehydrogenase	305900	X03674
Glucose-6-phosphate dehydrogenase	305900	X03674
Glucose-6-phosphate	305900	X03674

Glucose-6-phosphate dehydrogenase	305900	X03674	ALA335THR
Glucose-6-phosphate dehydrogenase	305900	X03674	GLU156LYS
Glucose-6-phosphate dehydrogenase	305900	X03674	GLY163SER
Glucose-6-phosphate dehydrogenase	305900	X03674	SER188PHE
Glucose-6-phosphate dehydrogenase	305900	X03674	ASP58ASN
Glucose-6-phosphate dehydrogenase	305900	X03674	ARG393HIS
Glucose-6-phosphate dehydrogenase	305900	X03674	GLY447ARG
Glucose-6-phosphate dehydrogenase	305900	X03674	ASP282HIS
Glucose-6-phosphate dehydrogenase	305900	X03674	PHE216LEU
Glucose-6-phosphate dehydrogenase	305900	X03674	LYS386GLU
Glucose-6-phosphate dehydrogenase	305900	X03674	ARG387HIS
Glucose-6-phosphate dehydrogenase	305900	X03674	CYS385ARG
Glucose-6-phosphate dehydrogenase	305900	X03674	GLY410CYS
Glucose-6-phosphate dehydrogenase	305900	X03674	ARG285HIS
Glucose-6-phosphate dehydrogenase	305900	X03674	NT1116, G-A

Glucose-6-phosphate dehydrogenase	305900	X03674	NT1311, C-T
Glucose-6-phosphate dehydrogenase	305900	X03674	EX6, -60, C-G
Glucose-6-phosphate dehydrogenase	305900	X03674	ARG454HIS
Glucose-6-phosphate dehydrogenase	305900	X03674	ARG459LEU
Glucose-6-phosphate dehydrogenase	305900	X03674	GLU398LYS
Glucose-6-phosphate dehydrogenase	305900	X03674	ASP181VAL
Glucose-6-phosphate dehydrogenase	305900	X03674	ASN126ASP
Glucose-6-phosphate dehydrogenase	305900	X03674	VAL213LEU
Glucose-6-phosphate dehydrogenase	305900	X03674	ARG393HIS
Glucose-6-phosphate dehydrogenase	305900	X03674	VAL291MET
Glucose-6-phosphate dehydrogenase	305900	X03674	ARG227LEU
Glucose-6-phosphate dehydrogenase	305900	X03674	LEU323PRO
Glucose-6-phosphate dehydrogenase	305900	X03674	ARG463HIS
Glucose-6-phosphate dehydrogenase	305900	X03674	ASN363LYS
Glucose-6-phosphate dehydrogenase	305900	X03674	ARG198CYS
Glucose-6-phosphate	305900	X03674	SER106CYS

Glucose-6-phosphate dehydrogenase	305900	X03674	ARG182TRP
Glucose-6-phosphate dehydrogenase	305900	X03674	ARG198CYS
Glucose-6-phosphate dehydrogenase	305900	X03674	ASN165ASP
Glucose-6-phosphate dehydrogenase	305900	X03674	ARG198PRO
Glucose-6-phosphate dehydrogenase	305900	X03674	ARG227GLN
Glucose-6-phosphate dehydrogenase	305900	X03674	PRO353SER
Glucose-6-phosphate dehydrogenase	305900	X03674	ARG387CYS
Glucose-6-phosphate dehydrogenase	305900	X03674	VAL394LEU
Glucose-6-phosphate dehydrogenase	305900	X03674	GLY410ASP
Glucose-6-phosphate dehydrogenase	305900	X03674	ARG439PRO
Glucose-6-phosphate dehydrogenase	305900	X03674	ILE35DEL
Glucose-6-phosphate dehydrogenase	305900	X03674	GLU317LYS
Glucose-6-phosphate dehydrogenase	305900	X03674	ILE48THR
Glucose-6-phosphate dehydrogenase	305900	X03674	HIS32ARG
Glucose-6-phosphate dehydrogenase	305900	X03674	GLY131VAL

Glucose-6-phosphate dehydrogenase	305900	X03674	LEU342PHE
Glucose-6-phosphate dehydrogenase	305900	X03674	ALA44GLY
Glucose-6-phosphate dehydrogenase	305900	X03674	PHE173LEU
Glucose-6-phosphate dehydrogenase	305900	X03674	ASP181VAL
Glucose-6-phosphate dehydrogenase	305900	X03674	PRO467ARG
Glucose-6-phosphate dehydrogenase	305900	X03674	ALA361VAL
Glucose-6-phosphate dehydrogenase	305900	X03674	24-BP DEL, NT953
Glucose-6-phosphate dehydrogenase	305900	X03674	Pro172-->Ser
Glucose-6-phosphate dehydrogenase	305900	X03674	R459L
Glucose-6-phosphate dehydrogenase	305900	X03674	R463H
Glucose-6-phosphate dehydrogenase	305900	X03674	C-->T 563
Glucose-6-phosphate dehydrogenase	305900	X03674	376A-->G
Glucose-6-phosphate dehydrogenase	305900	X03674	202G-->A
Glucose-6-phosphate dehydrogenase	305900	X03674	680G-->T
Glucose-6-phosphate dehydrogenase	305900	X03674	968T-->C
Glucose-6-phosphate dehydrogenase	305900	X03674	563C-->T

Glucose-6-phosphate dehydrogenase	305900	X03674	202G-->A
Glucose-6-phosphate dehydrogenase	305900	X03674	1311C-->T
Glucose-6-phosphate dehydrogenase	305900	X03674	406C-->T
Glucose-6-phosphate dehydrogenase	305900	X03674	1155C-->G
Glucose-6-phosphate dehydrogenase	305900	X03674	185C-->T, 62 Pro-->Phe
Glucose-6-phosphate dehydrogenase	305900	X03674	695G-->A
Glucose-6-phosphate dehydrogenase	305900	X03674	1387C-->T 463 Arg-->Cys
Glucose-6-phosphate dehydrogenase	305900	X03674	1246G-->A
Glucose-6-phosphate dehydrogenase	305900	X03674	1160G-->A
Glucose-6-phosphate dehydrogenase	305900	X03674	Bcl I
Glucose-6-phosphate dehydrogenase	305900	X03674	202G-->A
Glucose-6-phosphate dehydrogenase	305900	X03674	335Ala-->Thr
Glucose-6-phosphate dehydrogenase	305900	X03674	G-->T at nt 1376
Glucose-6-phosphate dehydrogenase	305900	X03674	G-->A at 1388
Glucose-6-phosphate dehydrogenase	305900	X03674	A-->G at nt 95

Glucose-6-phosphate dehydrogenase	305900	X03674	A209G
Glucose-6-phosphate dehydrogenase	305900	X03674	493 A-->G
Glucose-6-phosphate dehydrogenase	305900	X03674	592 C-->T
Glucose-6-phosphate dehydrogenase	305900	X03674	844 G > C
Glucose-6-phosphate dehydrogenase	305900	X03674	224 T-->C
Glucose-6-phosphate dehydrogenase	305900	X03674	488 G-->A
Glucose-6-phosphate dehydrogenase	305900	X03674	833 C-->T
Glucose-6-phosphate dehydrogenase	305900	X03674	1360C-->T 454Arg-->Cys
Glucose-6-phosphate dehydrogenase	305900	X03674	383T-->C 128Leu-->Pro
Glucose-6-phosphate dehydrogenase	305900	X03674	208T-->C 70Tyr-->His
Glucose-6-phosphate dehydrogenase	305900	X03674	497G-->A 166Arg-->His
Glucose-6-phosphate dehydrogenase	305900	X03674	A-->G 1138 val1380iso
Glucose-6-phosphate dehydrogenase	305900	X03674	T-->C 1139 iso380thr
Glucose-6-phosphate dehydrogenase	305900	X03674	C-->G 1177 gly393arg
Glucose-6-phosphate dehydrogenase	305900	X03674	C->T 1187
Glucose-6-phosphate dehydrogenase	305900	X03674	527A-->G

Glucose-6-phosphate dehydrogenase	305900	X03674	1003G-->A
Glucose-6-phosphate dehydrogenase	305900	X03674	1159C-->T
Glucose-6-phosphate dehydrogenase	305900	X03674	1160G-->A
Glucose-6-phosphate dehydrogenase	305900	X03674	1229G-->A
Glucose-6-phosphate dehydrogenase	305900	X03674	1246G-->A
Glucose-6-phosphate dehydrogenase	305900	X03674	1361G-->A
Glucose-6-phosphate dehydrogenase	305900	X03674	C-->T 563
Glucose-6-phosphate dehydrogenase	305900	X03674	C-->T 1311
Glucose-6-phosphate dehydrogenase	305900	X03674	241 C to T
Glucose-6-phosphate dehydrogenase	305900	X03674	487 G-->A
glutathione peroxidase	138320	Y00433	P197L
GPx1			
glutathione peroxidase GPx1	138320	Y00433	1167T/C Silent
glutathione peroxidase GPx2	138319	X68314	A/T intron
glutathione peroxidase GPx2	138319	X68314	TC repeats intron
glutathione peroxidase GPx3	138321	X58295	none found

glutathione peroxidase GPx4	138322	X71973	none found
glutathione peroxidase GPx5	603435	AJ005277	none found
Glutathione-S-transferase 1/MGST1 (microsomal)	138330	AH003674	none found
Glutathione-S-transferase 2/MGST2 (microsomal)	601733	NM_002413	none found
Glutathione-S-transferase 6 (microsomal)	138391	*****	none found
Glutathione-S-transferase GSTM3	138390	J05459	3bp deletion intron 6
glutathione-S-transferase GSTT1	600436	X79389	null genotype
glutathione-S-transferase GSTT2	600437	L38503	none found
Glutathione-S-transferase, alpha 1/GST $\alpha$ 1	138359	L13269	none found
Glutathione-S-transferase, alpha 2/GST $\alpha$ 2	138360	M15872	none found
Glutathione-S-transferase, kappa 1/GST $\kappa$ 1	602321	*****	none found
Glutathione-S-transferase, mu 1-like/GSTM1L	138270	*****	none found
Glutathione-S-	138350	J03817	gene deletion

transferase, mu				
1/GSTM1	138380	NM_00084	none found	
Glutathione-S-transferase, mu		NM_8		
2/GSTM2 (muscle)				
Glutathione-S-transferase, mu	138333	NM_00085	none found	
4/GSTM4		NM_0		
Glutathione-S-transferase, mu	138385	NM_00085	none found	
5/GSTM5 (brain/lung)	134660	NM_00085	IL104VAL	
Glutathione-S-transferase, pi/GSTP1		NM_2		
Glutathione-S-transferase, pi/GSTP1	134660	NM_00085	ALA113VAL	
Glutathione-S-transferase, pi/GSTP1	134660	NM_2	BamHI	
Glutathione-S-transferase, pi/GSTP1	134660	NM_00085	(ATAAA)n	
Glutathione-S-transferase, pi/GSTP1	138610	NM_2	upstream of gene	
GLYCOPROTEIN, ALPHA-1-ACID, OF SERUM, TYPE 2			none found	
H.sapiens mRNA for bleomycin hydrolase	602403	X92106	IL443VAL	
H.sapiens mRNA for NF-kB subunit histamine N.	164012	X61498	A939G	
methyltransferase histamine N-			Thr105Ile	
methyltransferase				
Homo sapiens ABC	MOATB	AF071202	none found	

transporter MOAT-B (MOAT-B) mRNA, complete cds	103730	M12272	ile349-to-val
Homo sapiens alcohol dehydrogenase class I gamma subunit (ADH3) mRNA, complete cds	103730	M12272	ARG271GLU
Homo sapiens alcohol dehydrogenase class I gamma subunit (ADH3) mRNA, complete cds	601176	L35546	none found
Homo sapiens gamma- glutamylcysteine synthetase light subunit mRNA, complete cds	264700	AB005038	ARG107HIS
Homo sapiens mRNA for 25-hydroxyvitamin D3 1-alpha- hydroxylase, complete cds	264700	AB005038	GLY125GLU
Homo sapiens mRNA for 25-hydroxyvitamin D3 1-alpha- hydroxylase, complete cds	264700	AB005038	ARG335PRO
Homo sapiens mRNA for 25-hydroxyvitamin D3 1-alpha- hydroxylase, complete			

			PRO382SER
Homo sapiens mRNA for 25-hydroxyvitamin D3 1-alpha-hydroxylase, complete cds	264700	AB005038	
Homo sapiens mRNA for 25-hydroxyvitamin D3 1-alpha-hydroxylase, complete cds	264700	AB005038	1-BP DEL frameshift
Homo sapiens mRNA for 25-hydroxyvitamin D3 1-alpha-hydroxylase, complete cds	264700	AB005038	1-BP DEL, 958G
Homo sapiens mRNA for 25-hydroxyvitamin D3 1-alpha-hydroxylase, complete cds	264700	AB005038	7-BP DUP
Homo sapiens mRNA for 25-hydroxyvitamin D3 1-alpha-hydroxylase, complete cds	603608	AB004854	none found
Homo sapiens mRNA for carbonyl reductase 3, complete cds	602447	L48513	CYS311SER
Homo sapiens paraoxonase 2 (PON2) mRNA, complete cds	602447	L48513	ALA148GLY
Homo sapiens paraoxonase 2 (PON2) mRNA, complete cds	602720	L48516	none found

paraoxonase 3 (PON3) mRNA, 3' end of cds Homo sapiens retinoic acid hydroxylase	602239	AF005418	none found
mRNA, complete cds Homo sapiens SMRP	SMRP	AB005659	none found
mRNA, complete cds Human alcohol dehydrogenase	600086	U07821	none found
(ADH7) mRNA, complete cds			
Human alcohol dehydrogenase 6 gene, complete cds	103735	M68895	none found
Human alcohol dehydrogenase class III (ADH5) mRNA, complete cds	103710	M29872	MspI
Human aldehyde dehydrogenase	601917	U37519	none found
(ALDH8) mRNA, complete cds			
Human aldehyde dehydrogenase 6 mRNA, complete cds	600463	U07919	none found
Human aldehyde dehydrogenase ALDH7 mRNA, complete cds	600466	U10868	none found
Human aldehyde dehydrogenase type III (ALDHIII) mRNA,	100660	M74542	none found

complete cds Human alpha-1 acid glycoprotein mRNA, complete cds	138600	M13692	VAL156MET
Human alpha-1 acid glycoprotein mRNA, complete cds	138600	M13692	GLN20ARG
Human aminopeptidase N/CD13 mRNA encoding aminopeptidase N, complete cds	151530	M22324	none found
Human arylacetamide deacetylase mRNA, complete cds	600338	L32179	none found
Human carbonyl reductase mRNA, complete cds	114830	J04056	none found
Human class I alcohol dehydrogenase (ADH2) beta-1 subunit mRNA, complete cds	103720	M24317	ARG47HIS
Human class I alcohol dehydrogenase (ADH2) beta-1 subunit mRNA, complete cds	103720	M24317	ARG369CYS
Human class II alcohol dehydrogenase (ADH4) pi subunit mRNA, complete cds	103740	M15943	-75A-->C

Human factor KBF1 mRNA, complete cds	164011	M55643	(CA)n
Human fatty aldehyde dehydrogenase (FALDH) mRNA, complete cds	270200	L47162	1-BP DEL, 525T
Human fatty aldehyde dehydrogenase (FALDH) mRNA, complete cds	270200	L47162	1-BP DEL, 808G
Human fatty aldehyde dehydrogenase (FALDH) mRNA, complete cds	270200	L47162	3-BP DEL/21-BP INS
Human fatty aldehyde dehydrogenase (FALDH) mRNA, complete cds	270200	L47162	ALA314GLY
Human fatty aldehyde dehydrogenase (FALDH) mRNA, complete cds	270200	L47162	PRO315ALA
Human fatty aldehyde dehydrogenase (FALDH) mRNA, complete cds	270200	L47162	CYS214TYR
Human fatty aldehyde dehydrogenase (FALDH) mRNA, complete cds	270200	L47162	PRO315SER
Human fatty aldehyde dehydrogenase (FALDH) mRNA, complete cds	270200	L47162	2-BP DEL, 1297GA frameshift

dehydrogenase (FALDH) mRNA, complete cds	270200	L47162	5-BP INS, NT1311
Human fatty aldehyde dehydrogenase (FALDH) mRNA, complete cds	602733	U34252	CYS115SER
Human gamma- aminobutyraldehyde dehydrogenase mRNA, complete cds	230450	M90656	A-->T 1109 His370Leu
Human gamma- glutamylcysteine synthetase (GCS) mRNA, complete cds	230450	M90656	(CAGC)n 1972-1975
Human gamma- glutamylcysteine synthetase (GCS) mRNA, complete cds	137168	M64099	none found
Human gamma- glutamyl transpeptidase- related protein (GGT- Rel) mRNA, complete cds	601002	U34683	ARG164GLN
Human glutathione synthetase mRNA, complete cds	601002	U34683	1-BP DEL frameshift
Human glutathione synthetase mRNA, complete cds	601002	U34683	ARG267TRP

synthetase mRNA, complete cds			
Human glutathione synthetase mRNA, complete cds	601002	U34683	ARG283CYS
Human glutathione synthetase mRNA, complete cds	601002	U34683	ARG125CYS
Human glutathione synthetase mRNA, complete cds	601002	U34683	PRO314LEU
Human glutathione synthetase mRNA, complete cds	601002	U34683	6-BP DEL VAL-GLN del
Human glutathione synthetase mRNA, complete cds	601002	U34683	ASP219GLY
Human kidney mRNA synthetase mRNA, complete cds	115500	X04076	IVS4, G-A, +5
Human kidney mRNA for catalase	115500	X04076	A to T -21
Human kidney mRNA for catalase	115500	X04076	C to A -20
Human kidney mRNA for catalase	115500	X04076	C to T -18
Human kidney mRNA for catalase	115500	X04076	T to C 4
Human kidney mRNA for catalase	115500	X04076	T to C 44
Human kidney mRNA for catalase	115500	X04076	T to C 49
			for catalase

Human kidney mRNA for catalase	115500	X04076	C to T 12
Human kidney mRNA for catalase	115500	X04076	C to A 27
Human kidney mRNA for catalase	115500	X04076	358 T->del
Human kidney mRNA for catalase	115500	X04076	MspI
Human messenger RNA for serum albumin (HSA)	103600	V00494	ARG-2HIS
Human messenger RNA for serum albumin (HSA)	103600	V00494	ARG-1GLN
Human messenger RNA for serum albumin (HSA)	103600	V00494	ARG-1PRO
Human messenger RNA for serum albumin (HSA)	103600	V00494	ASP1VAL
Human messenger RNA for serum albumin (HSA)	103600	V00494	HIS3GLN
Human messenger RNA for serum albumin (HSA)	103600	V00494	ARG114GLY
Human messenger RNA for serum albumin (HSA)	103600	V00494	GLU119LYS
Human messenger RNA for serum	103600	V00494	ASP269GLY

albumin (HSA)	103600	V00494	LYS313ASN
Human messenger RNA for serum albumin (HSA)			
Human messenger RNA for serum albumin (HSA)	103600	V00494	ALA320THR
Human messenger RNA for serum albumin (HSA)	103600	V00494	ARG-2CYSS
Human messenger RNA for serum albumin (HSA)	103600	V00494	GLU321LYS
Human messenger RNA for serum albumin (HSA)	103600	V00494	GLU354LYS
Human messenger RNA for serum albumin (HSA)	103600	V00494	GLU358LYS
Human messenger RNA for serum albumin (HSA)	103600	V00494	ASP365HIS
Human messenger RNA for serum albumin (HSA)	103600	V00494	LYS372GLU
Human messenger RNA for serum albumin (HSA)	103600	V00494	ASP375ASN
Human messenger RNA for serum albumin (HSA)	103600	V00494	GLU376LYS

Human messenger RNA for serum albumin (HSA)	103600	V00494	GLU382LYS
Human messenger RNA for serum albumin (HSA)	103600	V00494	GLU501LYS
Human messenger RNA for serum albumin (HSA)	103600	V00494	LYS541GLU
Human messenger RNA for serum albumin (HSA)	103600	V00494	ASP550GLY
Human messenger RNA for serum albumin (HSA)	103600	V00494	ASP563ASN
Human messenger RNA for serum albumin (HSA)	103600	V00494	GLU565LYS
Human messenger RNA for serum albumin (HSA)	103600	V00494	GLU570LYS
Human messenger RNA for serum albumin (HSA)	103600	V00494	LYS573GLU
Human messenger RNA for serum albumin (HSA)	103600	V00494	LYS574ASN
Human messenger RNA for serum albumin (HSA)	103600	V00494	IVS6, A-G, -2
Human messenger RNA for serum albumin (HSA)	103600	V00494	EX14DEL

RNA for serum albumin (HSA)	103600	V00494	LYS536GLU
Human messenger RNA for serum albumin (HSA)	103600	V00494	ARG-2CYS
Human messenger RNA for serum albumin (HSA)	103600	V00494	ARG-1LEU
Human messenger RNA for serum albumin (HSA)	103600	V00494	GLN580LYS
Human messenger RNA for serum albumin (HSA)	103600	V00494	GLU60LYS
Human messenger RNA for serum albumin (HSA)	103600	V00494	GLU82LYS
Human messenger RNA for serum albumin (HSA)	103600	V00494	ASP494ASN
Human messenger RNA for serum albumin (HSA)	103600	V00494	ASP365VAL
Human messenger RNA for serum albumin (HSA)	103600	V00494	HIS128ARG
Human messenger RNA for serum albumin (HSA)	103600	V00494	IVS13DS, G-C, +1

albumin (HSA)	103600	V00494	LYS240GLU
Human messenger RNA for serum albumin (HSA)			
Human messenger RNA for serum albumin (HSA)	103600	V00494	AAT267AAAT frameshift
Human messenger RNA for serum albumin (HSA)			
Human messenger RNA for serum albumin (HSA)	103600	V00494	ARG218HIS
Human messenger RNA for serum albumin (HSA)			
Human messenger RNA for serum albumin (HSA)	103600	V00494	HIS3TYR
Human messenger RNA for serum albumin (HSA)			
Human messenger RNA for serum albumin (HSA)	103600	V00494	LYS225GLN
Human messenger RNA for serum albumin (HSA)			
Human messenger RNA for serum albumin (HSA)	103600	V00494	LYS276ASN
Human messenger RNA for serum albumin (HSA)			
Human messenger RNA for serum albumin (HSA)	103600	V00494	TGC567GC frameshift
Human messenger RNA for serum albumin (HSA)			
Human messenger RNA for serum albumin (HSA)	103600	V00494	TYR140CY5
Human messenger RNA for serum albumin (HSA)			
Human messenger RNA for serum albumin (HSA)	103600	V00494	ASP63ASN
Human messenger RNA for serum albumin (HSA)			
Human messenger RNA for serum albumin (HSA)	103600	V00494	CYS177PHE
Human messenger RNA for serum albumin (HSA)			

Human messenger RNA for serum albumin (HSA)	103600	V00494	GLN268ARG
Human messenger RNA for serum albumin (HSA)	103600	V00494	ASN318LYS
Human messenger RNA for serum albumin (HSA)	103600	V00494	GLU333LYS
Human messenger RNA for serum albumin (HSA)	103600	V00494	GLU376ASN
Human messenger RNA for serum albumin (HSA)	103600	V00494	GLU479LYS
Human messenger RNA for serum albumin (HSA)	103600	V00494	GLU505LYS
Human messenger RNA for serum albumin (HSA)	103600	V00494	ARG218PRO
Human messenger RNA for serum albumin (HSA)	103600	V00494	LEU66PRO
Human messenger RNA for serum albumin (HSA)	103600	V00494	Arg218His
Human messenger RNA for serum albumin (HSA)	103600	V00494	HaeIII intron 7
Human messenger RNA for serum albumin (HSA)	600125	L13286	none found

1,25-dihydroxyvitamin D3 24-hydroxylase mRNA, complete cds Human mRNA for brain pyruvate dehydrogenase (EC 1.2.4.1)	312170	X52709	4-BP DEL
Human mRNA for brain pyruvate dehydrogenase (EC 1.2.4.1)	312170	X52709	7-BP DEL
Human mRNA for brain pyruvate dehydrogenase (EC 1.2.4.1)	312170	X52709	ARG378HIS
Human mRNA for brain pyruvate dehydrogenase (EC 1.2.4.1)	312170	X52709	LYS313DEL
Human mRNA for brain pyruvate dehydrogenase (EC 1.2.4.1)	312170	X52709	2-BP DEL frameshift
Human mRNA for brain pyruvate dehydrogenase (EC 1.2.4.1)	312170	X52709	20-BP DEL, EX11DEL
Human mRNA for brain pyruvate dehydrogenase (EC 1.2.4.1)	312170	X52709	21-BP INS

Human mRNA for brain pyruvate dehydrogenase (EC 1.2.4.1)	312170	X52709	ARG234GLY
Human mRNA for brain pyruvate dehydrogenase (EC 1.2.4.1)	312170	X52709	ARG302CYS
Human mRNA for brain pyruvate dehydrogenase (EC 1.2.4.1)	312170	X52709	4-BP INS frameshift
Human mRNA for brain pyruvate dehydrogenase (EC 1.2.4.1)	312170	X52709	ASP258ALA
Human mRNA for brain pyruvate dehydrogenase (EC 1.2.4.1)	312170	X52709	PHE205LEU
Human mRNA for brain pyruvate dehydrogenase (EC 1.2.4.1)	312170	X52709	TYR243ASN
Human mRNA for brain pyruvate dehydrogenase (EC 1.2.4.1)	312170	X52709	ASP315ASN
Human mRNA for brain pyruvate dehydrogenase (EC 1.2.4.1)	312170	X52709	MET282LEU

1.2.4.1)	Human mRNA for brain pyruvate dehydrogenase (EC 1.2.4.1)	312170	X52709	-BP INS FS141TER
	Human mRNA for brain pyruvate dehydrogenase (EC 1.2.4.1)	312170	X52709	ARG10PRO
	Human mRNA for brain pyruvate dehydrogenase (EC 1.2.4.1)	312170	X52709	13-BP INS, EX10
	Human mRNA for brain pyruvate dehydrogenase (EC 1.2.4.1)	312170	X52709	36-BP INS
	Human mRNA for brain pyruvate dehydrogenase (EC 1.2.4.1)	312170	X52709	none found
	Human mRNA for dipeptidase	179780	D13138	none found
	Human mRNA for glutathione reductase	138300	X15722	none found
	Human mRNA for (EC 1.6.4.2)	231950	X60069	none found
	pancreatic gamma- glutamyltransferase			none found
	Human multidrug resistance-associated protein homolog (MRP3)	CMOAT2	U83659	none found
	Human Na/ <i>t</i> aurocholate	182396	L21893	none found

cotransporting polypeptide mRNA, complete cds	309850	M69226	23-bp VNTR
Monoamine Oxidase A; MAOA	309850	M69226	3rd base of codon 941 941 G>T
Monoamine Oxidase A; MAOA	309850	M69226	A1026T ProlineProline
Monoamine Oxidase A; MAOA	309850	M69226	A1559G LysineArginine
Monoamine Oxidase A; MAOA	309850	M69226	A385C ArginineArginin e
Monoamine Oxidase A; MAOA	309850	M69226	C1410T Aspartic AcidAspartic
Monoamine Oxidase A; MAOA	309850	M69226	C886T GlutamineTermini nation codon
Monoamine Oxidase A; MAOA	309850	M69226	C886T Glutamine296T termination
Monoamine Oxidase A; MAOA	309850	M69226	codon
Monoamine Oxidase A; MAOA	309850	M69226	exon 14 -- RFLP (EcoRV enzyme)
Monoamine Oxidase A; MAOA	309850	M69226	length of (CA) <sub>n</sub> repeat
Monoamine Oxidase A; MAOA	309850	M69226	RFLP (EcoRV enzyme)
Monoamine Oxidase A; MAOA	309850	M69226	RFLP (Pst I)
Monoamine Oxidase A; MAOA	309850	M69226	T891G

Monoamine Oxidase A; MAOA	309850	M69226	T891G ArginineArginin e
Monoamine Oxidase B; MAOB	309860	M69177	(GT) <sup>n</sup> repeat
Monoamine Oxidase B; MAOB	309860	M69177	36 bases upstream from intron 13-exon 14 boundary
Monoamine Oxidase B; MAOB	309860	M69177	A at position 644 of intron 13
Monoamine Oxidase B; MAOB	309860	M69177	G at position 644 of intron 13
Monoamine Oxidase B; MAOB	309860	M69177	RFLP (MaelII enzyme)
multidrug resistance associated protein MRP1	158343	L05628	none found
multidrug resistance associated protein MRP1	601107	U83659	none found
multidrug resistance associated protein MRP2	171050	X96395	HindIII
multidrug resistance protein MDR1	171050	X96395	Ser893Ala
multidrug resistance protein MDR1	171050	X96395	GLY185VAL
multidrug resistance protein MDR1	602347	X06181	none found
protein MDR3/P- glycoprotein 3/PGY3			ARG569TRP
myeloperoxidase/MPO	254600		TYR173CYS
myeloperoxidase/MPO	254600		MET251THR
myeloperoxidase/MPO	254600		

myeloperoxidase/MPO	254600	G to A in the promoter
myeloperoxidase/MPO	254600	-463 G/A
myeloperoxidase/MPO	254600	Dimucleotide repeat
myeloperoxidase/MPO	254600	EcoRV RFLP
N-acetyltransferase 1/NAT1	108345	PstI.
N-acetyltransferase 1/arylamide acetylase	108345	NM_00066 POLYADENYLATION
N-acetyltransferase 1/NAT1	108345	2 ON SIGNAL
N-acetyltransferase 1/arylamide acetylase	108345	VARIANT
N-acetyltransferase 1/NAT1	108345	VAL149ILE
N-acetyltransferase 1/arylamide acetylase	108345	NM_00066
N-acetyltransferase 1/NAT1	108345	2
N-acetyltransferase 1/arylamide acetylase	108345	C1095A
N-acetyltransferase 1/NAT1	108345	NM_00066
N-acetyltransferase 1/arylamide acetylase	108345	2
N-acetyltransferase 1/NAT1	108345	T1088A
N-acetyltransferase 1/arylamide acetylase	108345	NM_00066
N-acetyltransferase 1/NAT1	108345	2
N-acetyltransferase 1/arylamide acetylase	108345	C1095A
N-acetyltransferase 1/NAT1	108345	NM_00066
N-acetyltransferase 1/arylamide acetylase	108345	2
N-acetyltransferase 1/NAT1	108345	9 bp deletion
N-acetyltransferase 1/arylamide acetylase	108345	NM_00066
N-acetyltransferase 1/NAT1	108345	2
N-acetyltransferase 1/arylamide acetylase	108345	G560A
N-acetyltransferase 1/NAT1	108345	NM_00066
N-acetyltransferase 1/arylamide acetylase	108345	2
N-acetyltransferase 1/NAT1	108345	C559T
N-acetyltransferase 1/arylamide acetylase	108345	NM_00066
N-acetyltransferase 1/NAT1	108345	2
N-acetyltransferase 1/arylamide acetylase	108345	C190T
N-acetyltransferase 1/NAT1	108345	NM_00066



1/NAT1	108345	NM_000662	A613G
N-acetyltransferase 1/arylamide acetylase			
1/NAT1	108345	NM_000662	A752T
N-acetyltransferase 1/arylamide acetylase			
1/NAT1	108345	NM_000662	T777C
N-acetyltransferase 1/arylamide acetylase			
1/NAT1	108345	NM_000662	G781A
N-acetyltransferase 1/arylamide acetylase			
1/NAT1	108345	NM_000662	A787G
N-acetyltransferase 1/arylamide acetylase			
1/NAT1	108345	NM_000662	Arg187 to a stop codon
N-acetyltransferase 1/arylamide acetylase			
1/NAT1	108345	NM_000662	Arg187 to Gln
N-acetyltransferase 1/arylamide acetylase			
1/NAT1	108345	NM_000662	-344 (C-->T)
N-acetyltransferase 1/arylamide acetylase			
1/NAT1	108345	NM_000662	640 T-->G Ser-->Ala
N-acetyltransferase 1/arylamide acetylase			
1/NAT1	243400	NM_000001	ARG197GLN
N-acetyltransferase 2/arylamide acetylase			
2/NAT2			

N-acetyltransferase 2/arylamide acetylase 2/NAT2	243400	NM_00001 5	ILE114THR
N-acetyltransferase 2/arylamide acetylase 2/NAT2	243400	NM_00001 5	LYS268ARG
N-acetyltransferase 2/arylamide acetylase 2/NAT2	243400	NM_00001 5	857G-A GLY-GLU
N-acetyltransferase 2/arylamide acetylase 2/NAT2	243400	NM_00001 5	191G-A Arg64-->Gln
N-acetyltransferase 2/arylamide acetylase 2/NAT2	243400	NM_00001 5	C282T (silent)
N-acetyltransferase 2/arylamide acetylase 2/NAT2	243400	NM_00001 5	T341C Ile114-->Thr
N-acetyltransferase 2/arylamide acetylase 2/NAT2	243400	NM_00001 5	481C-->T silent
N-acetyltransferase 2/arylamide acetylase 2/NAT2	243400	NM_00001 5	590 G-->A Arg197-->Gln
N-acetyltransferase 2/arylamide acetylase 2/NAT2	243400	NM_00001 5	803 A-->G Lys268-->Arg
N-acetyltransferase 2/arylamide acetylase 2/NAT2	243400	NM_00001 5	857 G-->A Gly286-->Glu
N-acetyltransferase 2/NAT2	243400	NM_00001	C759T

2/arylamide acetylase 2/NAT2	5		
NAD(P)H menadione oxidoreductase 1, dioxin-inducible/NMOR1/diap horase 4/DIA4	125860	NM_00090 3	609C-T pro187ser
NAD(P)H menadione oxidoreductase 2, dioxin-inducible/NMOR2	160998	NM_00090 4	none found
NEUROPATHY TARGET ESTERASE	603197		none found
nicotinamide N-methyltransferase/NN MT	600008	NM_00616 9	eight SNPs within intron 1
O6 alkylguanine-DNA alkyltransferase	156569	M60761	GGA to AGA gly160arg
O6 alkylguanine-DNA alkyltransferase	156569	M60761	1034A>G
O6 alkylguanine-DNA alkyltransferase	156569	M60761	1099C>T
O6 alkylguanine-DNA alkyltransferase	156569	M60761	79G>T
paraoxonase 1/PON1 (arylesterase)	168820	AH004193	GLN192ARG
paraoxonase 1/PON1 (arylesterase)	168820	AH004193	MET54LEU
paraoxonase 1/PON1 (arylesterase)	168820	AH004193	Leu55Met
paraoxonase 1/PON1	168820	AH004193	CA repeat intron 4.

(arylesterase)	PEPTIDE	601250	none found
METHIONINE			
SULFOXIDE			
REDUCTASE			
Peroxisome proliferative activated receptor, alpha/PPARA	170998	NM_005036	none found
Peroxisome proliferative activated receptor, delta/PPARD	600409	NM_006238	none found
Peroxisome proliferative activated receptor, gamma/PPARG	601487	NM_005037	PRO115GLN
Peroxisome proliferative activated receptor, gamma/PPARG	601487	NM_005037	PRO12ALA
Peroxisome proliferative activated receptor, gamma/PPARG	601487	NM_005037	1-BP DEL, 472A Frameshift
Peroxisome proliferative activated receptor, gamma/PPARG	601487	NM_005037	GLN286PRO
Peroxisome proliferative activated receptor, gamma/PPARG	601487	NM_005037	LYS319TER

Peroxisome proliferative activated receptor, gamma/PPARG	601487	NM_00503	ARG288HIS
Phenol-prefering sulfotransferase, family 1A, member 1/SULT1A1	171150	NM_00105	Arg213His
Phenol-prefering sulfotransferase, family 1A, member 2/SULT1A2	601292	NM_00105	none found
Phenol-prefering sulfotransferase, family 1A, member 3/SULT1A3	600641	L19956	none found
phenylethanolamine N-methyltransferase/PN MT	171190	NM_00268	BANI
PHOSPHOADENOSI NE-PHOSPHOSULFATE SYNTHETASE 1	603262	6	none found
Pyruvate dehydrogenase (lipoamide) beta	179060	M34479	none found
RAR related orphan receptor A/RORA	600825	NM_00294	none found
RAR related orphan receptor C/RORC reduced folate carrier	602943	NM_00506	none found
	600424	0	none found
		U19720	none found

RFC1	renal microsomal dipeptidase/DPEP1 (β-lactam ring hydrolysis)	179780	NM_00441 <sub>3</sub>	none found
	renal transport of beta-amino acids/AABT	109660		none found
	retinoic acid receptor alpha/RARA	180240	NM_00096 <sub>4</sub>	7-base deletion frameshift
	retinoic acid receptor alpha/RARA	180240	NM_00096 <sub>4</sub>	codon 411 C to T
	retinoic acid receptor alpha/RARA	180240	NM_00096 <sub>4</sub>	Arg272Gln
	retinoic acid receptor alpha/RARA	180240	NM_00096 <sub>4</sub>	Met297Leu
	retinoic acid receptor alpha/RARB	180220	NM_00096 <sub>5</sub>	none found
	retinoic acid receptor gamma/RARG	180190	M57707	none found
	retinoid X receptor alpha/RXR <sub>A</sub>	180245	NM_00295 <sub>7</sub>	none found
	retinoid X receptor beta/RXR <sub>B</sub>	180246	X664424	none found
	retinoid X receptor gamma/RXR <sub>G</sub>	180247	U38480	none found
	serotonin transporter	182138	X70697	PstI
	serotonin transporter	182138	X70697	promoter 44-bp ins/del
	serotonin transporter	182138	X70697	tandem repeat close to the promoter
	serotonin transporter	182138	X70697	two polyadenylation sites

serotonin transporter	182138	X70697	VNTR intron 2
serotonin transporter	182138	X70697	silent polymorphism
Solute Carrier Family 1, Member 1; Slc1a1	133550	U08989	none found
Solute Carrier Family 1, Member 2; Slc1a2	600300	U03505	none found
Solute Carrier Family 1, Member 3; Slc1a3	600111	U03504	none found
Solute carrier family 1, member 4/SLC1A4 (glutamate)	600229	NM_003038	none found
Solute carrier family 1, member 5/SLC1A5 (neutral AA)	109190	AF105230	none found
Solute carrier family 1, member 6 (GABA/GLU)/SLC1A6	600637	NM_005071	none found
Solute carrier family 10, member 1/SLC10A1 (taurocholate)	182396	NM_003049	none found
Solute carrier family 10, member 2/SLC10A2 (taurocholate)	601295	NM_000452	LEU243PRO
Solute carrier family 10, member 2/SLC10A2 (taurocholate)	601295	NM_000452	THR262MET

Solute carrier family 10, member 2/SLC10A2 (taurocholate)	601295	NM_00045 2	A171S
Solute carrier family 12, member 2/SLC12A2 (dicarboxylic acids)	604148	NM_00398 4	none found
Solute carrier family 15, member 1/SLC15A1 (peptides)	600544	U13173	none found
Solute carrier family 15, member 1/SLC15A2 (peptides)	602339	S78203	none found
Solute carrier family 16, member 1/SLC16A1 (monocarboxylic acids)	600682	NM_00305 1	none found
Solute carrier family 16, member 2/SLC16A2 (monocarboxylic acids)	300095	NM_00651 7	none found
Solute carrier family 16, member 3/SLC16A3 (monocarboxylic acids)	603877	NM_00420 7	none found
Solute carrier family 16, member 4/SLC16A4 (monocarboxylic acids)	603878	*****	none found
Solute carrier family	603879	NM_00469	none found

16, member 5/SLC16A5 (monocarboxylic acids)	603880	NM_00469 4	none found
16, member 6/SLC16A6 (monocarboxylic acids)	603654	AF049608	none found
16, member 7/SLC16A7 (monocarboxylic acids)	601460	NM_00563 0	none found
21, member 2/SLC21A2 (prostaglandin)	602883	NM_00507 5	none found
21, member 3/SLC21A3 (organic anion)	602631	AF037064	111-BP INS
22, member 1- like/SLC22A1 (organic cation)	602631	AF037064	688G-A
22, member 1- like/SLC22A1 (organic cation)	602607	NM_00305 8	none found
22, member 1/SLC22A2 (organic cation)			

Solute carrier family 22, member 2/SLC22A2 (organic cation)	602608	NM_00305 8
Solute carrier family 22, member 5/SLC22A5 (carnitine)	6033377	113-BP DEL
Solute carrier family 22, member 5/SLC22A5 (carnitine)	6033377	1-BP INS, 226C
Solute carrier family 22, member 5/SLC22A5 (carnitine)	6033377	TRP132TER
Solute carrier family 22, member 5/SLC22A5 (carnitine)	6033377	G-to-A transition in the last nucleotide of intron 8
Solute carrier family 22, member 5/SLC22A5 (carnitine)	6033377	1394-BP DEL
Solute carrier family 22, member 5/SLC22A5 (carnitine)	6033377	19-BP INS
Solute carrier family 22, member 5/SLC22A5 (carnitine)	6033377	171-BP DEL
Solute carrier family 22, member 5/SLC22A5 (carnitine)	6033377	ARG282TER
Solute carrier family 22, member 5/SLC22A5 (carnitine)	6033377	TYR401TER
Solute carrier family 22, member 5/SLC22A5 (carnitine)		

Solute carrier family 22, member 5/SLC22A5 (carnitine)	603377	1-BP DEL, 1345G
Solute carrier family 22, member 5/SLC22A5 (carnitine)	603377	PRO478LEU
Solute carrier family 22, member 5/SLC22A5 (carnitine)	603377	TYR211CYS
Solute carrier family 22, member 5/SLC22A5 (carnitine)	603377	Arg169Gln
Solute carrier family 25, member 5/SLC22A5 (carnitine)	190315	X96924
Solute carrier family 25, member 1/SLC25A1 (tricarboxylic acids)		none found
Solute carrier family 29 (nucleosides), member 1/SLC29A1/ENT1	602193	NM_00495 5
Solute carrier family 29 (nucleosides), member 2/SLC29A2/ENT2	602110	X86681
Solute carrier family 3 member 1/SLC3A1 (aa transporter)	104614	*****
Solute carrier family 5 member 6/SLC5A6 (folate, biotin, lipoate)	604024	*****
Solute carrier family 6 (GABA), member 1/SLC6A1	137165	X54673

Solute carrier family 6 (betaine/GABA), member 12	603080	U27699	none found
Solute carrier family 6 , member 5/SLC6A2/NAT1/NET 1 (glycine)	163970	NM_00104 3	none found
Solute carrier family 6, member 5/SLC6A5 (glycine)	604159	NM_00421 1	none found
Solute carrier family 6, member 6/SLC6A6 (taurine)	186854	U16120	Dinucleotide repeat
Solute carrier family 6, Member 9; SLC6A9 (glycine)	601019	S70612	none found
Solute carrier family 7, member 1/SLC7A1 (cationic AA)	104615	*****	TaqI
Solute carrier family 7, member 2/SLC7A2 (cationic AA)	601872	D29990	none found
Solute carrier family 7, member 4/SLC7A4 (cationic AA)	603752	*****	none found
Solute carrier family 7, member 5/SLC7A5 (neutral AA)	600182	M80244	none found
Solute carrier family 7, member 7/SLC7A7 (dibasic AA)	603593	Y18474	1181, A-T, -2 A->T

Solute carrier family 7, member 7/SLC7A7 (dibasic AA)	603593	Y18474	543-BP DEL
Solute carrier family 7, member 7/SLC7A7 (dibasic AA)	603593	Y18474	4-BP INS
Solute carrier family 7, member 9/SLC7A9 (neutral AA)	604144	*****	VAL170MET
Solute carrier family 7, member 9/SLC7A9 (neutral AA)	604144	*****	GLY105ARG
Solute carrier family 7, member 9/SLC7A9 (neutral AA)	604144	*****	ALA182THR
Solute carrier family 7, member 9/SLC7A9 (neutral AA)	604144	*****	GLY195ARG
Solute carrier family 7, member 9/SLC7A9 (neutral AA)	604144	*****	GLY259ARG
Solute carrier family 7, member 9/SLC7A9 (neutral AA)	604144	*****	2-BP DEL, 596TG
Solute carrier family 7, member 9/SLC7A9 (neutral AA)	604144	*****	1-BP INS, 520T
sterol-O-acyl transferase 1/SOAT1	102642	L21934	none found
sterol-O-acyl transferase 2/SOAT2	601311	*****	none found

Succinic semialdehyde dehydrogenase	271980	L34820	IVS9, G-T, +1
Succinic semialdehyde dehydrogenase	271980	L34820	IVS5, G-A, +1
SULFONYLUREA RECEPTOR 2	601439		none found
Sulfotransferase, family 1C, member 3/SULT1C1	602385	U66036	none found
Sulfotransferase, family 2B, member 1/SULT2B1	604125	NM_00460	none found
Superoxide Dismutase 1/SOD1 (soluble)	147450	NM_00045	GLY37ARG
Superoxide Dismutase 1/SOD1 (soluble)	147450	NM_00045	LEU38VAL
Superoxide Dismutase 1/SOD1 (soluble)	147450	NM_00045	GLY41SER
Superoxide Dismutase 1/SOD1 (soluble)	147450	NM_00045	GLY41ASP
Superoxide Dismutase 1/SOD1 (soluble)	147450	NM_00045	HIS43ARG
Superoxide Dismutase 1/SOD1 (soluble)	147450	NM_00045	GLY85ARG
Superoxide Dismutase 1/SOD1 (soluble)	147450	NM_00045	GLY93CYS
Superoxide Dismutase 1/SOD1 (soluble)	147450	NM_00045	GLY93ALA
Superoxide Dismutase 1/SOD1 (soluble)	147450	NM_00045	GLU100GLY
Superoxide Dismutase 1/SOD1 (soluble)	147450	NM_00045	LEU106VAL

1/SOD1 (soluble)	147450	NM_00045	4	ILE113THR
Superoxide Dismutase				
1/SOD1 (soluble)		NM_00045	4	ALA4VAL
Superoxide Dismutase				
1/SOD1 (soluble)	147450	NM_00045	4	HIS46ARG
Superoxide Dismutase				
1/SOD1 (soluble)		NM_00045	4	ALA4THR
Superoxide Dismutase				
1/SOD1 (soluble)	147450	NM_00045	4	ASP90ALA
Superoxide Dismutase				
1/SOD1 (soluble)		NM_00045	4	ILE104THE
Superoxide Dismutase				
1/SOD1 (soluble)	147450	NM_00045	4	LEU144SER
Superoxide Dismutase				
1/SOD1 (soluble)		NM_00045	4	ALA145THR
Superoxide Dismutase				
1/SOD1 (soluble)	147450	NM_00045	4	T-G, -10, 9-BP INS
Superoxide Dismutase				
1/SOD1 (soluble)		NM_00045	4	CYS6PHE
Superoxide Dismutase				
1/SOD1 (soluble)	147450	NM_00045	4	THR151ILE
Superoxide Dismutase				
1/SOD1 (soluble)		NM_00045	4	GLU21LYS
Superoxide Dismutase				
1/SOD1 (soluble)	147450	NM_00045	4	SER134ASN
Superoxide Dismutase				
1/SOD1 (soluble)		NM_00045	4	LEU84VAL
Superoxide Dismutase				
1/SOD1 (soluble)	147450	NM_00045	4	GLY16SER
Superoxide Dismutase				
1/SOD1 (soluble)		NM_00045	4	

Superoxide Dismutase 1/SOD1 (soluble)	147450	NM_00045 <sup>4</sup>	LEU126TER
Superoxide Dismutase 1/SOD1 (soluble)	147450	NM_00045 <sup>4</sup>	VS4AS, A-G, -11
Superoxide Dismutase 1/SOD1 (soluble)	147450	NM_00045 <sup>4</sup>	GLY72SER
Superoxide Dismutase 1/SOD1 (soluble)	147450	NM_00045 <sup>4</sup>	Val7-->Glu
Superoxide Dismutase 2/SOD2 (mitochondrial)	147460	X65965	ALA16VAL
Superoxide Dismutase 3/SOD3 (extracellular)	185490	NM_00310 <sup>2</sup>	ARG213GLY
Superoxide Dismutase 3/SOD3 (extracellular)	185490	NM_00310 <sup>2</sup>	A241G
Superoxide Dismutase 3/SOD3 (extracellular)	185490	NM_00310 <sup>2</sup>	C280T
Thiopurine methyltransferase (6-mercaptopurine detoxification)	187680	U12387	ALA80PRO
Thiopurine methyltransferase (6-mercaptopurine detoxification)	187680	U12387	ALA154THR
Thiopurine methyltransferase (6-mercaptopurine detoxification)	187680	U12387	TYR240CYS
Thiopurine methyltransferase (6-mercaptopurine detoxification)	187680	U12387	IVS9AS, G-A, -1

mercaptopurine detoxification)	187680	U12387	
Thiopurine methyltransferase (6- mercaptopurine detoxification)	187680	U12387	ALA154THR
Thiopurine methyltransferase (6- mercaptopurine detoxification)	187680	U12387	TYR240CYS
Thiopurine methyltransferase (6- mercaptopurine detoxification)	187680	U12387	ARG215HIS
Thiopurine methyltransferase (6- mercaptopurine detoxification)	187680	U12387	G460 to A
Thiopurine methyltransferase (6- mercaptopurine detoxification)	187680	U12387	A719 to G
Thiopurine methyltransferase (6- mercaptopurine detoxification)	187680	U12387	VNTR promoter
Thiopurine methyltransferase (6- mercaptopurine detoxification)	187680	U12387	G644A
Thiopurine methyltransferase (6- mercaptopurine detoxification)	187680	U12387	G238C

methyltransferase (6-mercaptopurine detoxification)	Thiopurine methyltransferase (6-mercaptopurine detoxification)	187680	U12387	T681G
Thiopurine methyltransferase (6-mercaptopurine detoxification)	Thiopurine methyltransferase (6-mercaptopurine detoxification)	187680	U12387	C-->T at nucleotide -178
Thiopurine methyltransferase (6-mercaptopurine detoxification)	Thiopurine methyltransferase (6-mercaptopurine detoxification)	187680	U12387	T-->G681
TRANSCRIPTION FACTOR P65	164014	L19067	494, Glu-Asp	
UDP glycosyltransferase 1/UGT1	191740	NM_00107 <sub>2</sub>	13-BP DEL	
UDP glycosyltransferase 1/UGT1	191740	NM_00107 <sub>2</sub>	SER-PHE	
UDP glycosyltransferase 1/UGT1	191740	NM_00107 <sub>2</sub>	GLN331TER	
UDP glycosyltransferase 1/UGT1	191740	NM_00107 <sub>2</sub>	ARG341TER	
UDP glycosyltransferase 1/UGT1	191740	NM_00107 <sub>2</sub>	GLN331ARG	

1/UGT1	191740	NM_00107	PHE170DEL
glycosyltransferase		<u>2</u>	
1/UGT1	UDP	NM_00107	SER376PHE
glycosyltransferase		<u>2</u>	
1/UGT1	UDP	NM_00107	GLY309GLU
glycosyltransferase		<u>2</u>	
1/UGT1	UDP	NM_00107	CYS-TER
glycosyltransferase		<u>2</u>	
1/UGT1	UDP	NM_00107	PRO229GLN
glycosyltransferase		<u>2</u>	
1/UGT1	UDP	NM_00107	2-BP INS, TA, TATAA ELEMENT
glycosyltransferase		<u>2</u>	
1/UGT1	UDP	NM_00107	1-BP INS, 470T
glycosyltransferase		<u>2</u>	
1/UGT1	UDP	NM_00107	IVS1, G-C, +1
glycosyltransferase		<u>2</u>	
1/UGT1	UDP	NM_00107	145C-T
glycosyltransferase		<u>2</u>	
1/UGT1	UDP	NM_00107	IVS3, A-G, -2
glycosyltransferase		<u>2</u>	
1/UGT1			

glycosyltransferase	UDP	601291	U30930	none found
8/UGT8	UDP	600070	NM_00107 5	none found
glycosyltransferase	family 2, member			
B10/UGT2B10	UDP	600069	U06641	asp85tyr
glycosyltransferase	family 2, member			
B15/UGT2B15	UDP	601903	NM_00107 7	none found
glycosyltransferase	family 2, member			
B17/UGT2B17	UDP	600067	NM_00107 3	asp458glu
glycosyltransferase	family 2, member			
B4/UGT2B4	UDP	600067	NM_00107 3	leu109phe
glycosyltransferase	family 2, member			
B4/UGT2B4	UDP	600067	NM_00107 3	leu396phe
glycosyltransferase	family 2, member			
B4/UGT2B4	UDP	600068	NM_00107 4	none found
glycosyltransferase	family 2, member			
B7/UGT2B7				

UDP-	218800	AJ005162	none found
glucuronosyltransferases			
Vesicular acetylcholine	600336	NM_00305	none found
transporter		5	
Vesicular Amine	193002	*****	none found
Transporter 1; VAT1			
Vesicular Amine	193001	L09118	TaqI XX
Transporter 2; VAT2			
3,5 cyclic nucleotide	171890	U40370	none found
phosphodiesterase			
(HSPDE1A3A)			
activated leucocyte cell	601662	L38608	none found
adhesion			
molecule/CD6			
ligand/ALCAM			
alpha-2-macroglobulin	103950	M11313	VAL1000ILE
alpha-2-macroglobulin	103950	M11313	CYS972TYR
alpha-2-macroglobulin	103950	M11313	deletion of the intron
alpha-2-macroglobulin	103950	M11313	ARG681HIS
alpha-2-macroglobulin	103950	M11313	EX18DEL
alpha-2-macroglobulin	103950	M11313	5-BP DEL
alpha-2-macroglobulin	103950	M11313	intronic

Table 21. Identified Variances in Genes or Related Pathways involved in Inflammation and Immune Disease

alpha-2-macroglobulin antigen peptide	103950 170260	M11313 X57522	polymorphism EcoRI	ILE333VAL
transporter 1/MHC 1/TAP1				
antigen peptide transporter 1/MHC 1/TAP1	170260	X57522	ASP637GLY	
antigen peptide transporter 1/MHC 1/TAP1	170260	X57522	ARG659GLN	
antigen peptide transporter 1/MHC 1/TAP1	170260	X57522	518 (GTC-->ATC) Val-->Ile	
antigen peptide transporter 1/MHC 1/TAP1	170260	X57522	G-->T substitution in the promoter region	
antigen peptide transporter 1/MHC 1/TAP1	170260	X57522	10-bp insert in intron 9	
antigen peptide transporter 1/MHC 1/TAP1	170260	X57522	G-->T 80bp 3' of termination codon	
antigen peptide transporter 2/MHC 2/TAP2	170261	Z22935	Ala665Thr	
antigen peptide transporter 2/MHC 2/TAP2	170261	Z22935	Gln687Stop	
antigen peptide transporter 2/MHC	170261	Z22935	ILE379VAL	

2/TAP2	147678	X65019	none found
apoptosis-related cystein protease 1/interleukin 1-beta converting enzyme/ICE/caspase 1/CASP1			
beta-1-adrenergic receptor; Adrb1	109630	J03019	C1165G ARG389GLY
beta-1-adrenergic receptor; Adrb1	109630	J03019	Bgl I.
Beta-2-Adrenergic Receptor; Adrb2	109690	M15169	val 34 met
Beta-2-Adrenergic Receptor; Adrb2	109690	M15169	A-->G-1343
Beta-2-Adrenergic Receptor; Adrb2	109690	M15169	C-->G-468
Beta-2-Adrenergic Receptor; Adrb2	109690	M15169	G-->A-1023
Beta-2-Adrenergic Receptor; Adrb2	109690	M15169	G-->A-654
Beta-2-Adrenergic Receptor; Adrb2	109690	M15169	T-->A-1429
Beta-2-Adrenergic Receptor; Adrb2	109690	M15169	T-->C-367
Beta-2-Adrenergic Receptor; Adrb2	109690	M15169	Fnu4H1
Beta-2-Adrenergic Receptor; Adrb2	109690	M15169	T-->C-20
Beta-2-Adrenergic Receptor; Adrb2	109690	M15169	T-->C-47

Beta-3-Adrenergic Receptor; Adrb3	109691	X70811	TRP64ARG
Beta-3-Adrenergic Receptor; Adrb3	109691	X70811	intron 1 g1856t
Beta-Adrenergic Receptor Kinase 2; Adrbk2	109636	X69117	none found
bradykinin receptor B1/BDKRB1 G protein-coupled	600337	U12512	9-base pair deletion
bradykinin receptor B1/BDKRB1 G protein-coupled	600337	U12512	A1098-->G
bradykinin receptor B1/BDKRB1 G protein-coupled	600337	U12512	C181-->T
bradykinin receptor B1/BDKRB1 G protein-coupled	600337	U12512	G-699-->C
bradykinin receptor B2/BDKRB2 G protein-coupled	113503	X86164	-845C/T
bradykinin receptor B2/BDKRB2 G protein-coupled	113503	X86165	-704C/T
bradykinin receptor B2/BDKRB2 G protein-coupled	113503	X86166	-649insG
bradykinin receptor B2/BDKRB2 G protein-coupled	113503	X86167	-640T/C

bradykinin receptor B2/BDKRB2 G protein-coupled	113503	X86168	-536C/T
bradykinin receptor B2/BDKRB2 G protein-coupled	113503	X86169	-412C/G
bradykinin receptor B2/BDKRB2 G protein-coupled	113503	X86170	-143C/T
bradykinin receptor B2/BDKRB2 G protein-coupled	113503	X86171	-78C/T
bradykinin receptor B2/BDKRB2 G protein-coupled	113503	X86172	T21M
bradykinin receptor B2/BDKRB2 G protein-coupled	113503	X86173	9 bp de (-)21-29
bradykinin receptor B2/BDKRB2 G protein-coupled	113503	X86174	C>T promoter 54
bradykinin receptor B2/BDKRB2 G protein-coupled	113503	X86175	tandem repeat near promoter
bradykinin receptor B2/BDKRB2 G protein-coupled	113503	X86176	R14C
bradykinin receptor B2/BDKRB2 G protein-coupled	113503	X86177	repeat 3'UTR
Ca Channel alpha 1a	601011	AF004884	ARG192GLN

(alt. splice) L-Type				
Ca Channel alpha Ia	601011	AF004884	THR666MET	
(alt. splice) L-Type				
Ca Channel alpha Ia	601011	AF004884	VAL714ALA	
(alt. splice) L-Type				
Ca Channel alpha Ia	601011	AF004884	ILE1811LEU	
(alt. splice) L-Type				
Ca Channel alpha Ia	601011	AF004884	1-BP DEL, 4073C frameshift	
(alt. splice) L-Type				
Ca Channel alpha Ia	601011	AF004884	G-to-A first	
(alt. splice) L-Type			nucleotide of intron	
Ca Channel alpha Ia	601011	AF004884	24	
(alt. splice) L-Type			(CAG)n	
Ca Channel alpha Ia	601011	AF004884	GLY293ARG	
(alt. splice) L-Type				
Ca Channel alpha Ia	601011	AF004884	ASP715GLU	
(alt. splice) L-Type				
Ca Channel alpha Ia	601011	AF004884	C4914T premature stop	
(alt. splice) L-Type				
Ca Channel gamma L-Type	114209	L07738	none found	
Ca2+-dependent	601192	U03090	none found	
phospholipase A2				
CD3E antigen, epsilon polypeptide (TrT3 complex)	186830	X03884	T-to-C splice change	
CD3E antigen, epsilon				
polypeptide (TrT3 complex)	186830	X03884	TRP59TER	
CD3E antigen, epsilon				
TaqI				

polypeptide (TiT3 complex)	186740	X04145	MET1VAL
CD3G antigen, gamma polypeptide (TiT3 complex)	186740	X04145	17-BP DEL
CD3G antigen, gamma polypeptide (TiT3 complex)	186740	X04145	MspI
CD3G antigen, gamma polypeptide (TiT3 complex)	186740	X04145	4-BP DEL
Complement C1S component precursor (C1 esterase)	120580	J04080	none found
Cyclooxygenase 1 COX1	176805	M59979	none found
Cyclooxygenase 2 COX2	600262	M90100	none found
H.sapiens ACTH-R	None	X65633	none found
gene for adrenocorticotrophic hormone receptor			
Histamine receptor H1	600167	AF026261	none found
Histamine receptor H2	142703	M64799	A649G
Histamine receptor H3			none found
Human DP prostanoid receptor (PTGDR)	None	U31332	none found
gene, 5 region and partial cds			
Human IP gene for prostacyclin receptor,	600022	D38128	none found

exon 3				
Human leukotriene-C4 synthase mRNA, complete cds	246530	U11552	promoter polymorphism	
Human mRNA for prostacyclin synthase, complete cds	601699	D38145	none found	
Human prostaglandin receptor ep1 subtype mRNA, complete cds	176802	L22647	none found	
Intercellular adhesion molecule 1	147840	M24283	K/E 469	
Intercellular adhesion molecule 1	147840	M24283	Dimucleotide repeat 3'	
Intercellular adhesion molecule 2	146630	X15606	none found	
Intercellular adhesion molecule 3	146631	X69819	LYS29MET	
interferon-gamma receptor 2/IFNGR2	147569	U05875	Gln64Arg	
interferon-gamma receptor 2/IFNGR2	147569		2-BP DEL, AG, NT278-279	
interferon-gamma receptor 1/IFNGR1	107470	J03143	395C-A SER-TER	
interferon-gamma receptor 1/IFNGR1	107470		1-BP DEL frameshift	
interferon-gamma receptor 1/IFNGR1	107470		IIE87THR	
interferon-gamma receptor 1/IFNGR1	107470		4-BP INS, 107TTAC	
interferon-gamma receptor 1/IFNGR1	107470		G-A, +1	

receptor 1/IFNGR1	107470	4-BP DEL, NT818
interferon-gamma		
receptor 1/IFNGR1	107470	Val14Met
interferon-gamma		
receptor 1/IFNGR1	107470	TaqI
interleukin 1 beta	147720	K02770
(IL1b)		
interleukin 1 beta	147720	K02770
(IL1b)		+5887 C --> T
interleukin 1 beta	147720	K02770
(IL1b)		exon 5 (position +3953)
interleukin 1 beta	147720	K02770
(IL1b)		position -511
interleukin 1 beta	147720	K02770
(IL1b)		Asp106Asn
Interleukin 1 receptor	147679	X52015
antagonist		86-bp tandem repeat
Kallikrein Inhibitor	147935	L19684
Kallikrein KLK1	147910	X13561
Kallikrein KLK1	147910	X13561
Kallikrein KLK2	147960	S39329
L-Type Ca Channel	114204	Z28613
alpha 2/delta		
L-Type Ca Channel	114206	Z226289
alpha 1d		none found
L-type voltage	114205	M92269
dependent calcium		none found
channel alpha 1C		
subunit/CACNA1C		

L-type voltage dependent calcium channel alpha 1S subunit/CACNA1S	114208	L33798	ARG1086HIS
L-type voltage dependent calcium channel alpha 1S subunit/CACNA1S	114208	L33798	ARG1239GLY
L-type voltage dependent calcium channel alpha 1S subunit/CACNA1S	114208	L33798	ARG1239HIS
L-type voltage dependent calcium channel alpha 1S subunit/CACNA1S	114208	L33798	ARG528HIS
Leukocyte integrin alpha-4	192975	L12002	none found
Leukocyte integrin alpha-d	602453	U40274	none found
Leukocyte integrin alpha-1	153370	Y00796	none found
Leukocyte integrin alpha-m	120980	J04145	none found
Leukocyte integrin alpha-x	151510	M81695	none found
Leukocyte integrin beta-1	135630	U28252	none found
Leukocyte integrin beta-2	600065	M15395	ARG593CYS
Leukocyte integrin	600065	M15395	LYS196THR

Leukocyte integrin beta-2	600065	M15395	LEU149PRO
Leukocyte integrin beta-2	600065	M15395	GLY169ARG
Leukocyte integrin beta-2	600065	M15395	ATG-to-AAG initiation codon
Leukocyte integrin beta-2	600065	M15395	ARG586TRP
Leukocyte integrin beta-2	600065	M15395	12-bp insertion pro-ser-ser-gln
Leukocyte integrin beta-2	600065	M15395	ASN351SER
Leukocyte integrin beta-2	600065	M15395	PRO178LEU
Leukocyte integrin beta-2	600065	M15395	ASP128ASN
Leukocyte integrin beta-2	600065	M15395	G-A, spliced/donor site
Leukocyte integrin beta-2	600065	M15395	GLY284SER
Leukocyte integrin beta-2	600065	M15395	SER138PRO
Leukocyte integrin beta-2	600065	M15395	GLY273ARG
Leukocyte integrin beta-2	600065	M15395	S138P
Leukocyte integrin beta-3	173470	M35999	ARG214GLN
Leukocyte integrin beta-3	173470	M35999	ASP119TYR

Leukocyte integrin beta-3	173470	M35999	ARG214TRP
Leukocyte integrin beta-3	173470	M35999	SER752PRO
Leukocyte integrin beta-3	173470	M35999	ARG143GLN
Leukocyte integrin beta-3	173470	M35999	LEU33PRO
Leukocyte integrin beta-3	173470	M35999	PRO407ALA
Leukocyte integrin beta-3	173470	M35999	G-T, EXDEL
Leukocyte integrin beta-3	173470	M35999	ARG489GLN
Leukocyte integrin beta-3	173470	M35999	CYS374TYR
Leukocyte integrin beta-3	173470	M35999	11.2-KB DEL
Leukocyte integrin beta-3	173470	M35999	ARG724TER
Leukocyte integrin beta-3	173470	M35999	GLU616TER
Leukocyte integrin beta-4	147557	X51841	1-BP INS, 3801T
Leukocyte integrin beta-4	147557	X51841	1-BP DEL, 1150G
Leukocyte integrin beta-4	147557	X51841	LEU156PRO
Leukocyte integrin beta-4	147557	X51841	ARG554TER
Leukocyte integrin beta-4	147557	X51841	CYS61TYR

Leukocyte integrin beta-4	147557	X51841	CYS562ARG
Leukocyte integrin beta-4	147557	X51841	IVS30DS, G-A, +1
Leukocyte integrin beta-4	147557	X51841	TRP1478TER
Leukocyte integrin beta-4	147557	X51841	CYS38ARG
Leukocyte integrin beta-4	147557	X51841	1-BP DEL, 4776G
Leukocyte integrin beta-4	147557	X51841	3434delT
Leukocyte integrin beta-4	147557	X51841	8-bp deletion
Leukocyte integrin beta-4	147559	M68892	none found
Leukotriene A4 hydrolase	151570	J03459	none found
Leukotriene C4 receptor			none found
Leukotriene D4/E4 receptor			none found
lipocortin 1/annexin 1	151690	X05908	none found
lipocortin 2/annexin 2	151740	D00017	none found
lipocortin 3/annexin 3	106490	M20560	BglII
lipocortin 3/annexin 3	106490	M20560	Sall
lipocortin 3/annexin 3	106490	M20560	tandem repeat
Lipoxygenases: 12- lipoxygenase (platelet)	152391	M62982	TAAA none found

Lipoxygenases: 5-lipoxygenase (leukocytes)	152390	J03571	none found
lymphotoxin beta receptor (TNFR superfamily, member 3/LTBR)	600979	L04270	none found
N-acylamino acid aminohydrolase	104620	L07548	none found
P2Y7 purinoceptor/leukotriene B4 receptor/G protein-coupled	601531	D89078	none found
Phospholipase A-2 (PLA-2) lung	172410	M21054	none found
Phospholipase C beta-3	600230	Z26649	none found
Phospholipase C delta-1	602142	U09117	none found
Phospholipase C epsilon	600597	D42108	none found
Phospholipase C gamma-1	172420	M34667	none found
Phospholipase C gamma-2	600220	M37238	none found
Phospholipase C, beta 4	600810	L41349	none found
Platelet-activating factor receptor	173393	M76674	none found
Prostaglandin 15-OH dehydrogenase (PGDH)	601688	J05594	none found

Prostaglandin E receptor 2 (subtype EP2), 53kD	601586	L28175	none found
Prostaglandin E receptor 3 (subtype EP3) {alternative products}	176806	X83861	none found
PROSTAGLANDIN E2 RECEPTOR, EP2 SUBTYPE	176804	U19487	none found
PROSTAGLANDIN F RECEPTOR	600563	L24470	none found
PROSTAGLANDIN F2 ALPHA RECEPTOR		U26664	none found
prostaglandin transporter hPGT recombinant activating gene 1/RAG1	601460	U70867	none found
recombination activating gene 1/RAG1	179615	M29474	GLU722LYS
recombination activating gene 1/RAG1	179615	M29474	GLU774TER
recombination activating gene 1/RAG1	179615	M29474	TYR938TER
recombination activating gene 1/RAG1	179615	M29474	ALA156VAL
recombination activating gene 1/RAG1	179615	M29474	ARG561HIS

1/RAG1	recombination activating gene	179615	M29474	ARG396CYS
1/RAG1	recombination activating gene	179615	M29474	TYR912CYS
1/RAG1	recombination activating gene	179615	M29474	ARG396HIS
1/RAG1	recombination activating gene	179615	M29474	ASP429GLY
1/RAG1	recombination activating gene	179615	M29474	ARG561CYS
1/RAG1	recombination activating gene	179615	M29474	ARG737HIS
1/RAG1	recombination activating gene	179615	M29474	13-BP DEL, NT1723
1/RAG1	recombination activating gene	179615	M29474	2-BP DEL, NT368
1/RAG1	recombination activating gene	179616		CYS476TYR
2/RAG2	recombination activating gene	179616		ARG220GLN
2/RAG2	recombination activating gene			

recombination	179616	CYS41TRP
activating gene		
2/RAG2		
recombination	179616	MET285ARG
activating gene		
2/RAG2		
regulator of G-protein signalling 1/RGS1	600323	X73427
Retinoic acid receptor, alpha/RARA	180240	X06538
Retinoic acid receptor, alpha/RARA	180240	X06538
Retinoic acid receptor, alpha/RARA	180240	X06538
Retinoic acid receptor, alpha/RARA	180240	X06538
Retinoic acid receptor, alpha/RARA	180220	X07282
Retinoic acid receptor, beta/RARB	180190	M24857
Retinoic acid receptor, gamma/RARG	182139	D49394
serotonin 5-HT receptors 5-HT3, gated ion channel		
signaling lymphocytic activation molecule/SLAM	603492	U33017
small inducible cytokine subfamily A (Cys-Cys), member 2/monocyte chemotactic protein	158105	M28226
		-2518 (G or A)

1/MCP1/SCYA2 small inducible cytokine subfamily A (Cys-Cys), member 2/monocyte chemotactic protein 1/MCP1/SCYA2	158105	M28226	-2076 (A or T)
small inducible cytokine subfamily A (Cys-Cys), member 3/macrophage	182283	M25315	none found
inflammatory protein 1A/MIP1A/SCYA3			
Solute carrier family 4, anion exchanger, member 1 (MEDIATES EXCHANGE OF INORGANIC ANIONS ACROSS THE MEMBRANE)	109270	M27819	LYS56GLU
Solute carrier family 4, anion exchanger, member 1 (MEDIATES EXCHANGE OF INORGANIC ANIONS ACROSS THE MEMBRANE)	109270	M27819	24-BP DEL CODONS 400- 408
Solute carrier family 4, anion exchanger, member 1 (MEDIATES EXCHANGE OF INORGANIC ANIONS ACROSS THE MEMBRANE)	109270	M27819	PRO327ARG

member 1 (MEDIATES EXCHANGE OF INORGANIC ANIONS ACROSS THE MEMBRANE)	109270	M27819	GLU40LYS
Solute carrier family 4, anion exchanger, member 1 (MEDIATES EXCHANGE OF INORGANIC ANIONS ACROSS THE MEMBRANE)	109270	M27819	10-BP DUP
Solute carrier family 4, anion exchanger, member 1 (MEDIATES EXCHANGE OF INORGANIC ANIONS ACROSS THE MEMBRANE)	109270	M27819	GLU658LYS
Solute carrier family 4, anion exchanger, member 1 (MEDIATES EXCHANGE OF INORGANIC ANIONS ACROSS THE MEMBRANE)	109270	M27819	GLY771ASP

anion exchanger, member 1 (MEDIATES EXCHANGE OF INORGANIC ANIONS ACROSS THE MEMBRANE)	109270	M27819	GLN330TER
Solute carrier family 4, anion exchanger, member 1 (MEDIATES EXCHANGE OF INORGANIC ANIONS ACROSS THE MEMBRANE)	109270	M27819	ARG150TER
Solute carrier family 4, anion exchanger, member 1 (MEDIATES EXCHANGE OF INORGANIC ANIONS ACROSS THE MEMBRANE)	109270	M27819	89G-A
Solute carrier family 4, anion exchanger, member 1 (MEDIATES EXCHANGE OF INORGANIC ANIONS ACROSS THE MEMBRANE)	109270	M27819	

Solute carrier family 4, anion exchanger, member 1	109270	M27819	VAL557MET
(MEDIATES EXCHANGE OF INORGANIC ANIONS ACROSS THE MEMBRANE)			
Solute carrier family 4, anion exchanger, member 1	109270	M27819	ARG589HIS
(MEDIATES EXCHANGE OF INORGANIC ANIONS ACROSS THE MEMBRANE)			
Solute carrier family 4, anion exchanger, member 1	109270	M27819	ARG589CYS
(MEDIATES EXCHANGE OF INORGANIC ANIONS ACROSS THE MEMBRANE)			
Solute carrier family 4, anion exchanger, member 1	109270	M27819	SER613PHE
(MEDIATES EXCHANGE OF INORGANIC ANIONS ACROSS THE MEMBRANE)			

THE MEMBRANE)			
Solute carrier family 4, anion exchanger, member 1	109270	M27819	ARG589SER
(MEDIATES EXCHANGE OF INORGANIC ANIONS ACROSS THE MEMBRANE)			
Solute carrier family 4, anion exchanger, member 1	109270	M27819	GLY701ASP
(MEDIATES EXCHANGE OF INORGANIC ANIONS ACROSS THE MEMBRANE)			
Solute carrier family 4, anion exchanger, member 1	109270	M27819	PRO854LEU
(MEDIATES EXCHANGE OF INORGANIC ANIONS ACROSS THE MEMBRANE)			
Solute carrier family 4, anion exchanger, member 1	109270	M27819	GLY130ARG
(MEDIATES EXCHANGE OF INORGANIC			

ANIONS ACROSS THE MEMBRANE)	109270	M27819	THR837ALA
Solute carrier family 4, anion exchanger, member 1 (MEDIATES EXCHANGE OF INORGANIC ANIONS ACROSS THE MEMBRANE)	176947	L05148	GG-AG, -11
T cell receptor- associated protein tyrosine kinase ZAP- 70/ZAP70	176947	L05148	G-A, -9
T cell receptor- associated protein tyrosine kinase ZAP- 70/ZAP70	176947	L05148	SER518ARG
T cell receptor- associated protein tyrosine kinase ZAP- 70/ZAP70	176947	L05148	13-BP DEL frameshift
Thromboxane A2 TP receptor, platelet and non-platelet	188070	U27325	ARG60LEU
Thromboxane synthase transforming growth	274180 190181	M80646 L11695	(CA)n intron 9 S387Y

factor, beta receptor I (activin A receptor type II-like kinase, 53kD)/TGFB <sub>2</sub> R1	190182	M85079	2-BP INS frameshift
transforming growth factor, beta receptor II (70-80kD)/TGFB <sub>2</sub> R2	190182	M85079	THR315MET
transforming growth factor, beta receptor II (70-80kD)/TGFB <sub>2</sub> R2	190182	M85079	GG to TT Stop codon
transforming growth factor, beta receptor II (70-80kD)/TGFB <sub>2</sub> R2	190182	M85079	a7g intron 2
transforming growth factor, beta receptor II (70-80kD)/TGFB <sub>2</sub> R2	190182	M85079	a-4t intron 3
transforming growth factor, beta receptor II (70-80kD)/TGFB <sub>2</sub> R2	190182	M85079	codon 128
transforming growth factor, beta receptor II (70-80kD)/TGFB <sub>2</sub> R2	190182	M85079	ACA to GCA Thr to Ala
transforming growth factor, beta receptor II (70-80kD)/TGFB <sub>2</sub> R2	190182	M85079	base in the polyadenine tract of exon 3 none found
transforming growth factor, beta receptor III (betaglycan,	600742	L07594	

300kD)/TGFB3	tumor necrosis factor	191160	X01394	C-850T
	alpha (TNFa)			
tumor necrosis factor	191160	X01394	C-ins 5'UTR of exon	
alpha (TNFa)			1	
tumor necrosis factor	191160	X01394	G -238 A	
alpha (TNFa)				
tumor necrosis factor	191160	X01394	G -376 A	
alpha (TNFa)				
tumor necrosis factor	191160	X01394	-1,031 T->C	
alpha (TNFa)				
tumor necrosis factor	191160	X01394	-863 C->A	
alpha (TNFa)				
tumor necrosis factor	191160	X01394	-308 G/A	
alpha (TNFa)				
tumor necrosis factor	191160	X01394	ARG32TRP	
alpha (TNFa)				
tumor necrosis factor	191160	X01394	LEU29SER	
alpha (TNFa)				
tumor necrosis factor	191160	X01394	G-376A	
alpha (TNFa)				
tumor necrosis factor	191160	X01394	Ncol	
alpha (TNFa)				
tumor necrosis factor	191160	X01394	C to T, -857T	
alpha (TNFa)				
TUMOR NECROSIS	191190	M58286	CYS33TYR	
FACTOR RECEPTOR				
1 PRECURSOR				
TUMOR NECROSIS	191190	M58286	THR50MET	
FACTOR RECEPTOR				
1 PRECURSOR				

TUMOR NECROSIS FACTOR RECEPTOR	191190	M58286	CYS30ARG
1 PRECURSOR			
TUMOR NECROSIS FACTOR RECEPTOR	191190	M58286	CYS52PHE
1 PRECURSOR			
TUMOR NECROSIS FACTOR RECEPTOR	191190	M58286	CYS88ARG
1 PRECURSOR			
TUMOR NECROSIS FACTOR RECEPTOR	191190	M58286	CYS88TYR
1 PRECURSOR			
Tumor necrosis factor receptor 2 (75kD)	191191	M32315	M196R
tumor necrosis factor type 1 receptor associated protein (TRAP1)	None	U12595	none found
tumor necrosis factor type 2 receptor associated protein (TRAP3)	601895	U12597	none found
Vascular cell adhesion molecule 1	192225	M60335	none found
vitamin D (1,25-dihydroxyvitamin D3) receptor/VDR	601769	J03258	GLY30ASP
vitamin D (1,25-dihydroxyvitamin D3) receptor/VDR	601769	J03258	ARG-GLY
vitamin D (1,25-			

dihydroxyvitamin D3) receptor/VDR	601769	J03258	ARG77GLN
vitamin D (1,25- dihydroxyvitamin D3) receptor/VDR	601769	J03258	ARG47GLN
vitamin D (1,25- dihydroxyvitamin D3) receptor/VDR	601769	J03258	GLN149TER
vitamin D (1,25- dihydroxyvitamin D3) receptor/VDR	601769	J03258	ARG271LEU
vitamin D (1,25- dihydroxyvitamin D3) receptor/VDR	601769	J03258	GLY46ASP
vitamin D (1,25- dihydroxyvitamin D3) receptor/VDR	601769	J03258	HIS305GLN
vitamin D (1,25- dihydroxyvitamin D3) receptor/VDR	601769	J03258	ILE314SER
vitamin D (1,25- dihydroxyvitamin D3) receptor/VDR	601769	J03258	ARG391CYS
vitamin D (1,25- dihydroxyvitamin D3) receptor/VDR	601769	J03258	ARG30TER
vitamin D (1,25- dihydroxyvitamin D3) receptor/VDR	601769	J03258	BsmI

receptor/VDR vitamin D (1,25-dihydroxyvitamin D3) receptor/VDR vitamin D (1,25-dihydroxyvitamin D3) receptor/VDR	601769 601769 601769 601769 601769 601769 601769 601769 601769 601769 601769 601769 601769 601769 601769 601769	J03258 J03258 J03258 J03258 J03258 J03258 J03258 J03258 J03258 J03258 J03258 J03258 J03258 J03258 J03258 J03258	ATG to ACG initiation codon Apa I Taq I codon 79 silent base change in intron 3 EcoRV xx none found none found EX18DEL
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Table 22. Identified Variances in Genes or Related Pathways involved in Endocrine and Metabolic Disease

		1-BP DEL	1-BP DEL	frame shift
a-glucosidase	Y000839	232300	T-G, -13 intron 1	
a-glucosidase	Y000839	232300		ARG725TRP
a-glucosidase	Y000839	232300		PRO545LEU
a-glucosidase	Y000839	232300		SER529VAL
a-glucosidase	Y000839	232300		GLY643ARG
a-glucosidase	Y000839	232300		GLU521LYS
a-glucosidase	Y000839	232300		GLU689LYS
a-glucosidase	Y000839	232300		ARG854TER
a-glucosidase	Y000839	232300		LEU299ARG
a-glucosidase	Y000839	232300		LYS903DEL
a-glucosidase	Y000839	232300		MET318THR
a-glucosidase	Y000839	232300		ASP91ASN
a-glucosidase	Y000839	232300		ASP645GLU
a-glucosidase AB	D42041	None	none found	
ACAT1	D90228	203750	1-BP INS, 1083A	
ACAT1	D90228	203750	1163 + 2	
ACAT1	D90228	203750	4-BP INS	
ACAT1	D90228	203750	828 + 1	
ACAT1	D90228	203750	IVS10, A-C, -2	
ACAT1	D90228	203750	IVS10, G-C, -1	
ACAT1	D90228	203750	IVS8, G-T, +1	
ACAT1	D90228	203750	ALA347THR	
ACAT1	D90228	203750	GLY150ARG	
ACAT1	D90228	203750	MET1LYS	
ACAT1	D90228	203750	GLY379VAL	
ACAT1	D90228	203750	GLN272TER	
ACAT1	D90228	203750	GLU345DEL	
ACAT1	D90228	203750	ASN93SER	
ACAT1	D90228	203750	ILE312THR	
ACAT1	D90228	203750	ALA333PRO	

ACAT1	D90228	203750	N158D
ACAT2	S70154	100678	1163 + 2
ACAT2	S70154	100678	828 + 1
ACAT2	S70154	100678	TaqI
ACAT2	S70154	100678	N158D
ACAT2	S70154	100678	Q272X
Adrenocorticotrophic hormone (ACTH)	M28636	176830	3804C-A
Adrenocorticotrophic hormone (ACTH)	M28636	176830	7013G-T
Adrenocorticotrophic hormone (ACTH)	M28636	176830	7133C DEL
hormone (ACTH)			(AC)n
aldose reductase	M34720	103880	none found
Alpha Amylase 2A; pancreatic	M28443	104650	
androgen receptor	M20132	313700	Hind III
androgen receptor	M20132	313700	(CAA)n
androgen receptor	M20132	313700	(CAG)n
androgen receptor	M20132	313700	(GGN)n
androgen receptor	M20132	313700	5-KB DEL, EX F,G
androgen receptor	M20132	313700	5-KB DEL,EX E
androgen receptor	M20132	313700	C>T within exon B
androgen receptor	M20132	313700	CAG340TAG
androgen receptor	M20132	313700	Del T at 3286
androgen receptor	M20132	313700	del1893
androgen receptor	M20132	313700	G Codon 210 A
androgen receptor	M20132	313700	G Codon 211 A
androgen receptor	M20132	313700	G2314A
androgen receptor	M20132	313700	G2677A
androgen receptor	M20132	313700	Hhal
androgen receptor	M20132	313700	Hpall

androgen receptor	M20132	313700	Insert of 69 nucleotides.
androgen receptor	M20132	313700	MaeII
androgen receptor	M20132	313700	PARTIAL DEL
androgen receptor	M20132	313700	Stu I
androgen receptor	M20132	313700	VAL730MET
androgen receptor	M20132	313700	ALA721THR
androgen receptor	M20132	313700	GLN902ARG
androgen receptor	M20132	313700	HIS874TYR
androgen receptor	M20132	313700	SER647ASN
androgen receptor	M20132	313700	THR877SER
androgen receptor	M20132	313700	ARG607GLN
androgen receptor	M20132	313700	VAL865LEU
androgen receptor	M20132	313700	VAL865MET
androgen receptor	M20132	313700	LYS588TER
androgen receptor	M20132	313700	CYS579PHE
androgen receptor	M20132	313700	PHE582TYR
androgen receptor	M20132	313700	pro892ser
androgen receptor	M20132	313700	PRO546SER
androgen receptor	M20132	313700	ILE869MET
androgen receptor	M20132	313700	GLU2LYS
androgen receptor	M20132	313700	ARG839CYS
androgen receptor	M20132	313700	ARG839HIS
androgen receptor	M20132	313700	GLN60TER
androgen receptor	M20132	313700	TRP794TER
androgen receptor	M20132	313700	LEU172TER
androgen receptor	M20132	313700	LEU707ARG
androgen receptor	M20132	313700	MET786VAL
androgen receptor	M20132	313700	TYR761CYS
androgen receptor	M20132	313700	ARG772CYS
androgen receptor	M20132	313700	598 or 599 ter

androgen receptor	M20132	313700	gly743val
androgen receptor	M20132	313700	Gin798Glu
androgen receptor	M20132	313700	arg726leu
androgen receptor	M20132	313700	LEU676PRO
androgen receptor	M20132	313700	ARG608LYS
androgen receptor	M20132	313700	val 581 phe
androgen receptor	M20132	313700	G214R
androgen receptor	M20132	313700	THR877ALA
androgen receptor	M20132	313700	ALA771THR
androgen receptor	M20132	313700	Arg615His
androgen receptor	M20132	313700	Arg752Gln
androgen receptor	M20132	313700	arg840his
androgen receptor	M20132	313700	LYS882TER
androgen receptor	M20132	313700	ARG846HIS
androgen receptor	M20132	313700	ARG773HIS
androgen receptor	M20132	313700	TRP717TER
androgen receptor	M20132	313700	ARG773CYS
androgen receptor	M20132	313700	VAL866MET
androgen receptor	M20132	313700	ARG855HIS
androgen receptor	M20132	313700	MET780ILE
Arginine Vasopressin	AF030625	600821	none found
Receptor 1A/AVPR1A			none found
Arginine Vasopressin	AF030512	600264	none found
Receptor 1B/AVPR1B			1-BP DEL
Arginine vasopressin	AF030626	304800	1-BP DEL, 102G
receptor 2			
Arginine vasopressin	AF030626	304800	1-BP INS frameshift
receptor 2			
Arginine vasopressin	AF030626	304800	1-BP INS 804 frameshift
Arginine vasopressin			

Arginine vasopressin receptor 2	AF030626	304800	15delC
Arginine vasopressin receptor 2	AF030626	304800	28-bp del
Arginine vasopressin receptor 2	AF030626	304800	786delG frameshift
Arginine vasopressin receptor 2	AF030626	304800	CpG dinucleotides
Arginine vasopressin receptor 2	AF030626	304800	TYR280CYS
Arginine vasopressin receptor 2	AF030626	304800	P322H
Arginine vasopressin receptor 2	AF030626	304800	P322S
Arginine vasopressin receptor 2	AF030626	304800	ARG113TRP
Arginine vasopressin receptor 2	AF030626	304800	TRP71TER
Arginine vasopressin receptor 2	AF030626	304800	ALA132ASP
Arginine vasopressin receptor 2	AF030626	304800	ARG203CYS
Arginine vasopressin receptor 2	AF030626	304800	GLY185CYS
Arginine vasopressin receptor 2	AF030626	304800	TYR205CYS
Arginine vasopressin receptor 2	AF030626	304800	ASP85ASN
Arginine vasopressin receptor 2	AF030626	304800	GLY201ASP

Arginine vasopressin receptor 2	AF030626	304800	ARG337TER
Arginine vasopressin receptor 2	AF030626	304800	G107E
Arginine vasopressin receptor 2	AF030626	304800	L43P
Arginine vasopressin receptor 2	AF030626	304800	W193X
Arginine vasopressin receptor 2	AF030626	304800	ARG181CYS
Arginine vasopressin receptor 2	AF030626	304800	R137H
Arginine vasopressin receptor 2	AF030626	304800	none found
ATP-sensitive inwardly rectifying K-channel	U24660	600877	intron 1 g1856t
Beta-3-Adrenergic Receptor; Adrb3	X70811	109691	TRP64ARG
Beta-3-Adrenergic Receptor; Adrb3	X70811	109691	none found
BONE MORPHOGENETIC PROTEIN RECEPTOR, TYPE IB; BMPR1B	U26553	114131	PRO463LEU
Calcitonin Receptor	U26553	114131	pro447leu
Calcitonin Receptor	U17473	114190	none found
Calcitonin Related Peptide Receptor	M26095	114130	1-BP INS, IVS4
Calcitonin Related Polypeptide Alpha	U02632	600150	none found
Calcium-activated			

potassium channel				
calpain, large polypeptide L3/CAPN3	NM_00000 70	114240		ARG572GLN
calpain, large polypeptide L3/CAPN3	NM_00000 70	114240		ARG110TER
calpain, large polypeptide L3/CAPN3	NM_00000 70	114240		ARG769GLN
calpain, large polypeptide L3/CAPN3	NM_00000 70	114240		PRO319LEU
calpain, large polypeptide L3/CAPN3	NM_00000 70	114240		SER86PHE
			none found	
Carnitine	X78706	600184		
Acetyltransferase				
Carnitine	D87812	600528		ASP454GLY
Palmitoyltransferase I (muscle)				
Carnitine	U09648	600650		413 delAG
Palmitoyltransferase II				
Carnitine	U09648	600650		ARG631CYS
Palmitoyltransferase II				
Carnitine	U09648	600650		E174K
Palmitoyltransferase II				
Carnitine	U09648	600650		F352C
Palmitoyltransferase II				
Carnitine	U09648	600650		M647V
Palmitoyltransferase II				

Carnitine	U09648	600650	V368I
Palmitoyltransferase II			SER113LEU
Carnitine	U09648	600650	
Palmitoyltransferase II			R124Stop
Carnitine	U09648	600650	
Palmitoyltransferase II			ASP553ASN
Carnitine	U09648	600650	
Palmitoyltransferase II			PRO50HIS
Carnitine	U09648	600650	
Palmitoyltransferase II			GLU174LYS
Carnitine	U09648	600650	
Palmitoyltransferase II			PHE383TYR
Carnitine	U09648	600650	
Palmitoyltransferase II			F448L
Carnitine	U09648	600650	
Palmitoyltransferase II			G549D
Carnitine	U09648	600650	
Palmitoyltransferase II			ARG503CYS
Carnitine	U09648	600650	
Palmitoyltransferase II			TYR628SER
Carnitine	U09648	600650	
Palmitoyltransferase II			none found
CCAAT/ENHANCER-BINDING PROTEIN, GAMMA; CEBPG			
Cell surface receptor for sulfonylureas on pancreatic b cells	L78207	600509	EX35, G-A
Cell surface receptor for sulfonylureas on pancreatic b cells	L78207	600509	G-A, -9 EXON ALPHA DEL

Cell surface receptor for sulfonylureas on pancreatic b cells	L78207	600509	3-BP DEL	PHE138DEL
Cell surface receptor for sulfonylureas on pancreatic b cells	L78207	600509	ACC-->ACT	Thr759Thr
Cell surface receptor for sulfonylureas on pancreatic b cells	L78207	600509	BRANCH POINT, A-G, -20	
Cell surface receptor for sulfonylureas on pancreatic b cells	L78207	600509	Exon 16 -3c-->t	
Cell surface receptor for sulfonylureas on pancreatic b cells	L78207	600509	G-A, -1	splice change
Cell surface receptor for sulfonylureas on pancreatic b cells	L78207	600509	G-A, -1 exon 5	
Cell surface receptor for sulfonylureas on pancreatic b cells	L78207	600509	ARG1353PRO	
Cell surface receptor for sulfonylureas on pancreatic b cells	L78207	600509	ARG1421CYS	
Cell surface receptor for sulfonylureas on pancreatic b cells	L78207	600509	ARG1494TRP	
Cell surface receptor for sulfonylureas on pancreatic b cells	L78207	600509	R275Q	
Cell surface receptor for sulfonylureas on pancreatic b cells	L78207	600509	V560M	

for sulfonylureas on pancreatic b cells			
Cell surface receptor	L78207	600509	F591L
for sulfonylureas on pancreatic b cells			
Cell surface receptor	L78207	600509	G1382S
for sulfonylureas on pancreatic b cells			
Cell surface receptor	L78207	600509	H125Q
for sulfonylureas on pancreatic b cells			
Cell surface receptor	L78207	600509	N188S
for sulfonylureas on pancreatic b cells			
Cell surface receptor	L78207	600509	R1215Q
for sulfonylureas on pancreatic b cells			
Cell surface receptor	L78207	600509	R1394H
for sulfonylureas on pancreatic b cells			
Cell surface receptor	L78207	600509	T1139M
for sulfonylureas on pancreatic b cells			
Cell surface receptor	L78207	600509	S1370A
for sulfonylureas on pancreatic b cells			
Cell surface receptor	L78207	600509	GLY716VAL
for sulfonylureas on pancreatic b cells			
cytochrome P450 aromatase (CYP19)	X13589	107910	(TTTA)n in intron 5

cytochrome P450 aromatase (CYP19)	X13589	107910	1-BP DEL, 408C	frameshift
cytochrome P450 aromatase (CYP19)	X13589	107910	G-->A at Val80	silent
cytochrome P450 aromatase (CYP19)	X13589	107910	G-1094 -A	ARG365GLN
cytochrome P450 aromatase (CYP19)	X13589	107910	G-to-A	Val370-to-Met
cytochrome P450 aromatase (CYP19)	X13589	107910	GT to AT exon and intron 3	
cytochrome P450 aromatase (CYP19)	X13589	107910	splice donor	29 extra amino acids
cytochrome P450 aromatase (CYP19)	X13589	107910	(GT>GC) of intron 6	ARG435CYS
cytochrome P450 aromatase (CYP19)	X13589	107910		CYS437TYR
cytochrome P450 aromatase (CYP19)	X13589	107910		Arg264cys
cytochrome P450 aromatase (CYP19)	X13589	107910		ARG375CYS
Cytochrome P450, subfamily IIB (phenobarbital-inducible), polypeptide 6	M29874	None	none found	
Cytochrome P450, subfamily XIA (cholesterol side chain cleavage)	M14565	118485	5' UTR pentanucleotide repeat	

Cytochrome P450, subfamily XVII (steroid 17-alpha- hydroxylase), adrenal hyperplasia	M14564	202110	1-BP DEL	frameshift
Cytochrome P450, subfamily XVII (steroid 17-alpha- hydroxylase), adrenal hyperplasia	M14564	202110	1-bp C del codon 131	
Cytochrome P450, subfamily XVII (steroid 17-alpha- hydroxylase), adrenal hyperplasia	M14564	202110	1-BP DEL	frameshift
Cytochrome P450, subfamily XVII (steroid 17-alpha- hydroxylase), adrenal hyperplasia	M14564	202110	4-BP DUP, EX8	
Cytochrome P450, subfamily XVII (steroid 17-alpha- hydroxylase), adrenal hyperplasia	M14564	202110	469-BP INS	
Cytochrome P450, subfamily XVII (steroid 17-alpha- hydroxylase), adrenal hyperplasia	M14564	202110	518-BP DEL	
Cytochrome P450, subfamily XVII (steroid 17-alpha- hydroxylase), adrenal hyperplasia	M14564	202110	7-BP DUP, EX2	

subfamily XVII (steroid 17-alpha-hydroxylase), adrenal hyperplasia	M14564	202110	IVS2, G-T, +5
Cytochrome P450, subfamily XVII (steroid 17-alpha-hydroxylase), adrenal hyperplasia	M14564	202110	IVS7+5G to A
Cytochrome P450, subfamily XVII (steroid 17-alpha-hydroxylase), adrenal hyperplasia	M14564	202110	T->C promoter
Cytochrome P450, subfamily XVII (steroid 17-alpha-hydroxylase), adrenal hyperplasia	M14564	202110	ARG347HIS
Cytochrome P450, subfamily XVII (steroid 17-alpha-hydroxylase), adrenal hyperplasia	M14564	202110	ARG358GLN
Cytochrome P450, subfamily XVII (steroid 17-alpha-hydroxylase), adrenal hyperplasia	M14564	202110	TRP17TER

(steroid 17-alpha-hydroxylase), adrenal hyperplasia			
Cytochrome P450, subfamily XVII (steroid 17-alpha-hydroxylase), adrenal hyperplasia	M14564	202110	PHE417CYS
Cytochrome P450, subfamily XVII (steroid 17-alpha-hydroxylase), adrenal hyperplasia	M14564	202110	PHE53/54 DEL
Cytochrome P450, subfamily XVII (steroid 17-alpha-hydroxylase), adrenal hyperplasia	M14564	202110	ARG239TER
Cytochrome P450, subfamily XVII (steroid 17-alpha-hydroxylase), adrenal hyperplasia	M14564	202110	PRO342THR
Cytochrome P450, subfamily XVII (steroid 17-alpha-hydroxylase), adrenal hyperplasia	M14564	202110	SER106PRO
Cytochrome P450, subfamily XVII (steroid 17-alpha-hydroxylase), adrenal hyperplasia	M14564	202110	PHE53DEL

hydroxylase), adrenal hyperplasia			
Cytochrome P450, subfamily XVII (steroid 17-alpha-hydroxylase), adrenal hyperplasia	M14564	202110	his373leu
Cytochrome P450, subfamily XVII (steroid 17-alpha-hydroxylase), adrenal hyperplasia	M14564	202110	Arg496Cys
Cytochrome P450, subfamily XVII (steroid 17-alpha-hydroxylase), adrenal hyperplasia	M14564	202110	Gln461Stop
Cytochrome P450, subfamily XVII (steroid 17-alpha-hydroxylase), adrenal hyperplasia	M14564	202110	ARG96TRP
Cytochrome P450, subfamily XVII (steroid 17-alpha-hydroxylase), adrenal hyperplasia	M14564	202110	none found
DOLICHOL-PHOSPHATE MANNOSYLTRANSF ERASE 1	603564	603564	none found
DOLICHYL-PHOSPHATE MANNOSYLTRANSF ERASE 2			
REGULATORY			

SUBUNIT				
Endothelin Receptor	D90348	131243	none found	
Type A				
Endothelin Receptor	L06623	131244	1-BP INS, 878T	
Type B				
Endothelin Receptor	L06623	131244	TRP275TER	
Type B				
Endothelin Receptor	L06623	131244	ALA183GLY	
Type B				
Endothelin Receptor	L06623	131244	TRP276CYS	
Type B				
Endothelin Receptor	L06623	131244	SER305ASN	
Type B				
Endothelin Receptor	L06623	131244	GLY57SER	
Type B				
estrogen receptor 1 (ESR1)	X03635	133430	RFLP (PssI enzyme)	
estrogen receptor 1 (ESR1)	X03635	133430	RFLP (PvuII enzyme)	
none found				
Estrogen-preferring sulfotransferase/STE 20	NM_0054	600043		
FATTY ACID COENZYME A LIGASE, LONG- CHAIN 2		152426	none found	
Folic Acid (Folate Receptor)	M28099	136430	none found	
follicle stimulating hormone-beta (FSH)	M16646	136530	CYS51GLY	
follicle stimulating hormone-beta (FSH)	M16646	136530	FS87TER	

FSH receptor	M65085	136435	566C-->T
FSH receptor	M65085	136435	BsmI
FSH receptor	M65085	136435	HindIII
FSH receptor	M65085	136435	PstI
FSH receptor	M65085	136435	ARG573CYS
FSH receptor	M65085	136435	ILE160THR
FSH receptor	M65085	136435	PHE591SER
FSH receptor	M65085	136435	Thr307Ala
FSH receptor	M65085	136435	Asp567Gly
FSH receptor	M65085	136435	Ser680Asn
FSH receptor	M65085	136435	Asp334Gly
FSH receptor	M65085	136435	ALA189VAL
G PROTEIN-COUPLED	601751	none found	
RECEPTOR 24; GPR24			
Glucagon	J04040	138030	Dimucleotide repeat
glucagon receptor/GCGR	NM_000160	138033	Alu-repeat
glucagon receptor/GCGR	NM_000160	138033	GLY40SER
glucagon-like peptide 1 receptor/GLP1R	U01156	138032	silent substitution in exon 6
glucagon-like peptide 1 receptor/GLP1R	U01156	138032	simple tandem repeat DNA polymorphism
glucagon-like peptide 2 receptor/GLP2R	*****	603659	none found
glucocorticoid receptor	M11050	138040	4-BP DEL 2 bases of the exon and the first 2

glucocorticoid receptor	M11050	138040	A to G 3'-splice junction of intron G
glucocorticoid receptor	M11050	138040	Base-pair deletion in exon 9
glucocorticoid receptor	M11050	138040	Bc11
glucocorticoid receptor	M11050	138040	32 amino acid deletion
glucocorticoid receptor	M11050	138040	frame shift
glucocorticoid receptor	M11050	138040	T insertion 1188 and 1189
glucocorticoid receptor	M11050	138040	trinucleotide insertion
glucocorticoid receptor	M11050	138040	Arg453
glucocorticoid receptor	M11050	138040	TthIII
glucocorticoid receptor	M11050	138040	LEU753PHE
glucocorticoid receptor	M11050	138040	CYS736SER
glucocorticoid receptor	M11050	138040	CYS736THR
glucocorticoid receptor	M11050	138040	ILE747THR
glucocorticoid receptor	M11050	138040	ASP641VAL
glucocorticoid receptor	M11050	138040	L753F
glucocorticoid receptor	M11050	138040	Q710X
glucocorticoid receptor	M11050	138040	ASN363SER
glucocorticoid receptor	U25029	138040	none found
glucocorticoid receptor	X03348	138040	none found
glucocorticoid receptor	601993	none found	
GLUCOCORTICOID RECEPTOR-INTERACTING PROTEIN 1			
glycogen synthase	138571	IVS6, G-C, +1	
[human, liver, mRNA, 2912 nt]			

glycogen synthase [human, liver, mRNA, 2912 nt]	S70004	138571	ALA339PRO
glycogen synthase [human, liver, mRNA, 2912 nt]	S70004	138571	ARG246TER
glycogen synthase [human, liver, mRNA, 2912 nt]	S70004	138571	ASN39SER
glycogen synthase [human, liver, mRNA, 2912 nt]	S70004	138571	HIS446ASP
glycogen synthase [human, liver, mRNA, 2912 nt]	S70004	138571	MET491ARG
glycogen synthase [human, liver, mRNA, 2912 nt]	S70004	138571	SER483PRO
glycogen synthase [human, liver, mRNA, 2912 nt]	S70004	138571	PRO479GLN
glycogen synthase [human, liver, mRNA, 2912 nt]	S70004	138571	ARG262GLN
gonadotropin releasing hormone receptor/G protein-coupled/LHRHR/GNR HR	NM_000406	138850	GLN106ARG

gonadotropin releasing hormone receptor/G protein-coupled/LHRHR/GNR HR	NM_000406	138850	TYR284CYS
gonadotropin releasing hormone receptor/G protein-coupled/LHRHR/GNR HR	NM_000406	138850	Mae III
Gonadotropin-releasing hormone (leutinizing-releasing hormone) GROWTH FACTOR RECEPTOR-BOUND PROTEIN 2; GRB2	M12578	152760	none found
Growth hormone 1	V00519	139250	G-T, +1 intron 4
Growth hormone 1	V00519	139250	1-BP DEL, 371C
Growth hormone 1	V00519	139250	18-BP DEL, +28-45
Growth hormone 1	V00519	139250	intron 3
Growth hormone 1	V00519	139250	2-BP DEL
Growth hormone 1	V00519	139250	6.7-KB DEL
Growth hormone 1	V00519	139250	BglII
Growth hormone 1	V00519	139250	G-A, +1 intron 3
Growth hormone 1	V00519	139250	G-A, +28
Growth hormone 1	V00519	139250	G-C, +1 intron 3
Growth hormone 1	V00519	139250	G-C, +1 intron 4
Growth hormone 1	V00519	139250	HincII
Growth hormone 1	V00519	139250	MspI
Growth hormone 1	V00519	139250	T-C, +6 intron 3
Growth hormone 1	V00519	139250	ARG77CYS

Growth hormone 1 Growth hormone 1 Growth hormone receptor	V00519 Y00519 X06562	139250 139250 600946	ASP112GLY TRP20TER
growth hormone releasing hormone receptor/G protein- coupled/GHRHR	U34195	139191	none found
growth hormone releasing hormone receptor/G protein- coupled/GHRHR	U34195	139191	IVS8DS, G-C, -1 alternative splice
growth hormone releasing hormone receptor/G protein- coupled/GHRHR	U34195	139191	1-BP DEL frameshift
growth hormone releasing hormone receptor/G protein- coupled/GHRHR	U34195	139191	2-BP DEL frameshift
growth hormone releasing hormone receptor/G protein- coupled/GHRHR	U34195	139191	C to T codon 236. silent
growth hormone releasing hormone receptor/G protein- coupled/GHRHR	U34195	139191	EX4,6DEL
growth hormone releasing hormone receptor/G protein- coupled/GHRHR	U34195	139191	GAA180GAG silent
growth hormone releasing hormone receptor/G protein- coupled/GHRHR	U34195	139191	IVS4DS, G-A, +1 alternative splice

coupled/GHRHR growth hormone releasing hormone receptor/G protein- coupled/GHRHR	U34195	139191	IVS6AS, G-T, -1
growth hormone releasing hormone receptor/G protein- coupled/GHRHR	U34195	139191	IVS8AS, G-C, -1
growth hormone releasing hormone receptor/G protein- coupled/GHRHR	U34195	139191	IVS9DS, G-A, +1 frameshift
growth hormone releasing hormone receptor/G protein- coupled/GHRHR	U34195	139191	ARG161CYS
growth hormone releasing hormone receptor/G protein- coupled/GHRHR	U34195	139191	GLU224ASP
growth hormone releasing hormone receptor/G protein- coupled/GHRHR	U34195	139191	GLU44LYS
growth hormone releasing hormone receptor/G protein- coupled/GHRHR	U34195	139191	PHE96SER
growth hormone releasing hormone receptor/G protein- coupled/GHRHR	U34195	139191	ASP152HIS

receptor/G protein-coupled/GHRHR	U34195	139191	GLN154PRO
growth hormone releasing hormone receptor/G protein-coupled/GHRHR	U34195	139191	ILE153THR
growth hormone releasing hormone receptor/G protein-coupled/GHRHR	U34195	139191	VAL155GLY
growth hormone releasing hormone receptor/G protein-coupled/GHRHR	U34195	139191	VAL155ILE
growth hormone releasing hormone receptor/G protein-coupled/GHRHR	U34195	139191	PRO131GLN
growth hormone releasing hormone receptor/G protein-coupled/GHRHR	U34195	139191	GLU224TER
growth hormone releasing hormone receptor/G protein-coupled/GHRHR	U34195	139191	PS61T
growth hormone releasing hormone receptor/G protein-coupled/GHRHR	U34195	139191	ARG217TER

releasing hormone receptor/G protein-coupled/GHRHR	U34195	139191	ARG43TER
growth hormone releasing hormone receptor/G protein-coupled/GHRHR	U34195	139191	CYS38TER
growth hormone releasing hormone receptor/G protein-coupled/GHRHR	L29177		none found
Guanylate cyclase 1, soluble, alpha 2	X63282	601244	none found
Guanylate cyclase soluble, alpha-3 chain	X66534	139396	none found
Guanylate cyclase soluble, beta-1 chain	X66533	139397	none found
H.sapiens ACTH-R	X65633	202200	C818A
gene for adrenocorticotrophic hormone receptor	X65633	202200	Ser74Ile
H.sapiens ACTH-R			
gene for adrenocorticotrophic hormone receptor			
H.sapiens ALK-3 mRNA	Z22535	601299	none found
H.sapiens encoding PC1/PC3	X64810	162150	IVSS5DS, A-C, +4

H.sapiens encoding PC1/PC3	X64810	162150	GLY483ARG
H.sapiens HNF4 mRNA for hepatocyte nuclear factor 4	X76930	600281	1-BP DEL
H.sapiens HNF4 mRNA for hepatocyte nuclear factor 4	X76930	600281	PHE75T
H.sapiens HNF4 mRNA for hepatocyte nuclear factor 4	X76930	600281	GLN268TER
H.sapiens HNF4 mRNA for hepatocyte nuclear factor 4	X76930	600281	ARG154TER
H.sapiens HNF4 mRNA for hepatocyte nuclear factor 4	X76930	600281	ARG127TRP
H.sapiens HNF4 mRNA for hepatocyte nuclear factor 4	X76930	600281	VAL393ILE
H.sapiens HNF4 mRNA for hepatocyte nuclear factor 4	X76930	600281	Val/Met255
H.sapiens IL-1R2 mRNA for type II interleukin-1 receptor, (cell line CB23)	X59770	147811	none found
H.sapiens mRNA for beta subunit of epithelial amiloride- sensitive sodium channel	X87159	600760	1-BP INS, 592C
H.sapiens mRNA for beta subunit of	X87159	600760	32-BP DEL